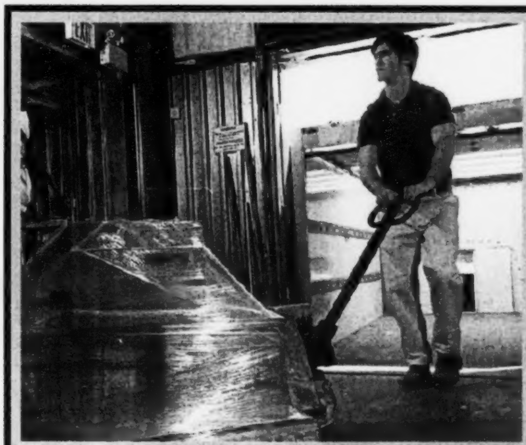

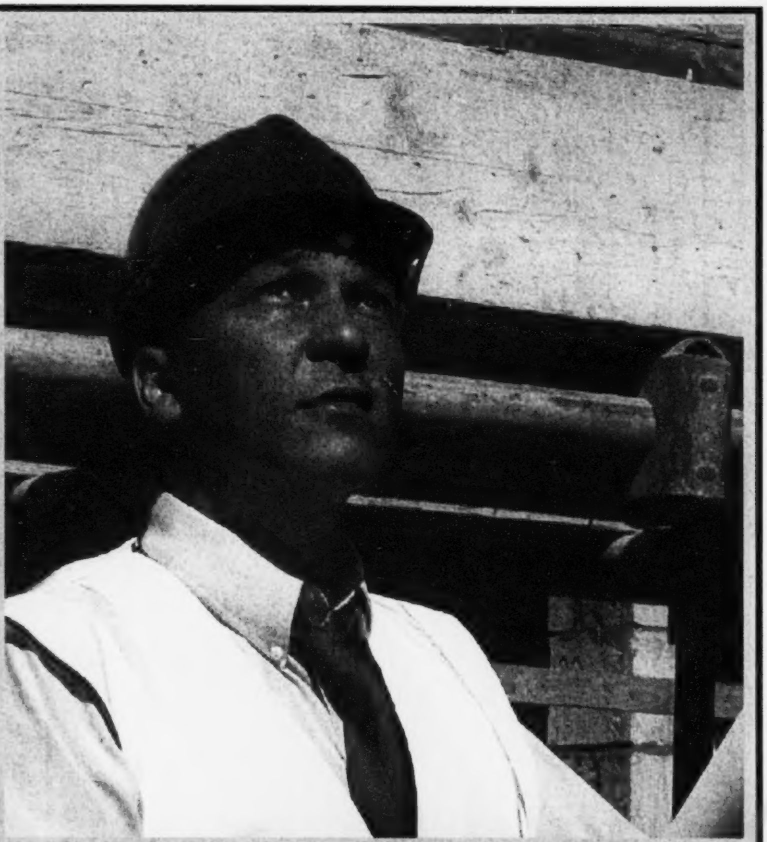

OCCUPATIONAL INJURIES AND DISEASES IN ALBERTA

Lost-Time Claims, Disabling Injury Claims and Claim Rates

2009 Summary

WORK SAFE
ALBERTA

Summer 2010

Government of Alberta

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HIGHLIGHTS

Overall, Alberta was a safer, healthier place to work.

- The lost-time claim rate of Alberta workplaces decreased by 9.8% in 2009 to 1.69 per 100 person-years worked, from 1.88 in 2008. The 2009 rate was the lowest since 1991 when the current methodology was implemented. The duration rate of 40 days-lost per 100 person-years worked was down from 41 days-lost in 2008.
- The disabling injury rate, which includes lost-time claims and modified work claims, decreased by 15.0% in 2009 to 3.09 per 100 person-years worked, from 3.63 in 2008.
- The average fatality rate, as measured over a ten-year period from 2000 to 2009, was 90 per million person-years worked. The ten-year rate in 2008 was 95 fatalities per million person-years worked.

Medium and large sized employers experienced the highest injury rates.

- In 2009, employers with 40 to 99 person-years worked (workers) had the highest lost-time claim rate at 1.71 per 100 person-years worked. Employers with over 100 person-years worked had the highest disabling injury rate at 3.38 per 100 person-years worked.

Injury rates decreased in all sectors.

- Lost-time claim and disabling injury rates decreased in all of the eight major industry sectors between 2008 and 2009.
- The Mining and Petroleum Development sector had the lowest lost-time claim rate of all sectors in 2009 at 0.53 per 100 person-years worked. The Transportation, Communication and Utilities sector had the highest lost-time claim rate, 2.44 per 100 person-years worked.
- The Business, Professional and Personal Services sector had the lowest disabling injury rate in 2009 at 1.57 per 100 person-years worked. The Manufacturing, Processing and Packaging sector had the highest, 4.42.
- Fatality rates continued to be lower than the provincial average in the following sectors: Wholesale and Retail sector, Public Administration, Education and Health Services sector and Business, Personal and Professional Services sector.

Lost-Time Claim and Disabling Injury Rates by Major Industry Sector – Alberta: 2008 and 2009

Industry Sector	2008		2009	
	Lost-Time Claim Rate	Disabling Injury Rate	Lost-Time Claim Rate	Disabling Injury Rate
Agriculture and Forestry	2.72	3.66	**2.36**	**3.02**
Business, Personal and Professional Services	1.20	1.79	**1.08**	**1.57**
Construction and Construction Trade Services	1.91	4.65	**1.73**	**3.92**
Manufacturing, Processing and Packaging	2.24	5.78	**1.65**	**4.42**
Mining and Petroleum Development	0.66	2.92	**0.53**	**2.03**
Public Administration, Education and Health Services	2.29	3.00	**2.21**	**2.90**
Transportation, Communication and Utilities	2.70	4.42	**2.44**	**3.98**
Wholesale and Retail	1.99	3.44	**1.85**	**3.17**
Alberta	**1.88**	**3.63**	**1.69**	**3.09**

Data Source: WCB Data, Prepared by Data Development and Evaluation

Overexertion was the most common cause for claims in all industries.

- Sprains, strains and tears continued to be the leading nature of injury with the back (including spine and spinal cord) the most commonly injured body part.
- Person-injured or ill worker (self-injury or self-induced bodily motion injuries) was the leading source of injury, with overexertion the leading type of event.

A few notes about this report:

- This report presents 2009 data beside 2008 data to help with comparisons. Additional historical data are presented where possible.
- Information presented in this report is based on incidents that occurred during 2009 and were accepted as lost-time or modified work claims by Workers' Compensation Board – Alberta (WCB) as of March 31, 2010.
- Injury claim rates based on a small number of person-years worked are too volatile to make valid comparisons over time. Therefore, claim rates are not calculated when there are fewer than 40 person-years worked. Duration rates are also volatile when based on a small number of lost-time claims. Duration rates are not calculated when there are fewer than 30 lost-time claims.
- Estimates of year-over-year change for rates presented in this report are calculated using unrounded figures and may not match those produced from rounded figures. Percentages displayed in tables may also not total 100, due to rounding.
- Throughout the report, the lost-time claim rate is the number of lost-time claims per 100 person-years worked, the disabling injury rate is the number of disabling injury claims per 100 person-years worked and the duration rate is the number of days-lost per 100 person-years worked. Fatality rates are expressed as the number of fatalities per million person-years worked.
- Analyses by industry are based on WCB industry classification and E&I aggregation of data. For more information see

  https://ds.wcb.ab.ca/WCB.RateManual.WebServer/alphaindex.aspx.
- Analyses by occupation group are based on the National Occupational Classification (NOC). The NOC provides a standard list of occupations across the country. For more information see http://www5.hrsdc.gc.ca/NOC.
- Occupational injuries and diseases listed throughout this report are based on the Z795 Coding of Work Injury or Disease Information produced by the Canadian Standards Association (CSA) for categorizing occupational injury and disease. For more information see
  http://www.shopcsa.ca/onlinestore/GetCatalogItemDetails.asp?mat=2416404.
- Terms, definitions and formulas used throughout this report are described in Appendix A.

SECTION

1

INTRODUCTION

Role of the Ministry of Employment and Immigration

The Ministry of Employment and Immigration includes the reporting entity of the Department of Employment and Immigration (E&I). E&I develops and delivers policies, programs and services to foster labour force development; ensure fair, safe and healthy workplaces; and help those in need. The Department also provides leadership for immigration and interprovincial labour mobility policy for the Government of Alberta, and coordinates resources to support the settlement and integration of new Albertans.

Occupational Injuries and Diseases in Alberta - 2009 Summary

E&I prepares this annual report to provide analysis of workplace health and safety to meet the demand from industry and safety associations, labour organizations, employers and workers for incorporating this information into their strategic plans for enhancing workplace health and safety. This includes:

- descriptions of programs and initiatives undertaken in pursuit of the workplace health and safety mission and goals;
- analysis of provincial occupational injury and disease information against a national picture;
- estimations of the risk of injury or disease at the provincial, industry sector and sub-sector level as well as general descriptions about the incidents and injured workers.

The *Occupational Injuries and Diseases in Alberta* publications present analysis of aggregate injury claim data to allow for the tracking of workplace health and safety performance over time. This is important for evaluating past and present performance, and in providing strategic information for the direction of workplace health and safety policy. The analysis contained in this report provides a comprehensive picture of workplace injuries in the province, allowing for a prevention focus to be made based on injury probabilities, rather than possibilities.

Healthy and Productive Workplaces

E&I promotes safe, healthy and productive workplaces, as well as fair, equitable and stable labour relations to ensure a fair, safe and healthy work environment for Alberta's workers. Work is central to people's lives, and to the stability of families and societies. People want work that provides them with an acceptable standard of living. It is important that workers enter an environment where their health and safety are protected, where they are treated with respect and they are compensated fairly for the job they are doing. This results in an attractive workplace that furthers the position of Alberta employers to be competitive in the global economy (see Note 1.1). Alongside the human cost of occupational injuries and diseases and the impact on families and society, the economic costs are numerous.

Note 1.1
Research by the International Institute for Management Development and the World Economic Forum suggests that the safest-working countries also have the best competitiveness ratings ***(International Labour Organization, XVIIth World Congress on Safety and Health at Work, Introductory Report: Decent Work-Safe Work, September 2005).***

Claim costs for occupational injury and disease by WCB are projected to total $700 million in 2010.[1] These costs are ultimately paid by employers through premium payments, and impact the costs of running a business as well as the final cost of delivering products and services. Further costs associated with occupational injuries and diseases include the material damage to equipment and premises, the additional cost of hiring staff to cover for injured workers, and the lost productivity resulting from the absence. Additional impacts of poor health and safety for employers include higher absenteeism and lower morale of employees, loss of skilled and experienced employees, loss of the company's investment in training, and difficulty in recruiting high-quality employees due to the loss of image (particularly in the case of subcontractors to larger companies), all leading to losses in productivity and underutilization of production (see Note 1.2).

Note 1.2
The International Labour Organization (ILO) estimates that approximately 4% of Gross Domestic Product is lost due to occupational injuries and diseases ***(ILO, World Day for Safety and Health at Work 2009 – Facts on safety and health at work issues, April 2009).***

Other costs borne by the economy and society due in part to work-related injuries and diseases include early retirements, unemployment and poorer households. The International Labour Organization (ILO) estimates that in high-income countries, around 40% of all retirements (before statutory age) are caused by disability. This is equivalent to around 14% of the lifetime working capacity of the employed labour force.[2] Occupational injuries and diseases also affect unemployment and household income levels. Workers with an impairment of capacity can reduce their re-employability and impact household income. Workplace injuries and diseases typically reduce the overall earnings of households and in certain cases, family members have to give up jobs in order to care for an injured worker.

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[1] See the Workers Compensation Board Alberta 2010 Premium Rate Manual https://www.wcb.ab.ca/pdfs/employers/10_premium_rate_manual.pdf

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[2] See the International Labour Organization report: Safety in numbers – pointers for a global safety culture at work http://www.ilo.org/public/english/region/eurpro/budapest/download/safety_in_numbers_engl.pdf

WORKPLACE HEALTH AND SAFETY INITIATIVES

The Alberta government has developed strategies to ensure Alberta continues to be a healthy and safe place to work and conduct business.

Work Safe Alberta is a joint industry, labour and government initiative established to develop and implement strategies to prevent work-related illness and injuries in Alberta. Strategies address awareness and education, recognition of good performance, promotion of health and safety management, legislation and enforcement.

Awards recognize health and safety performance and innovation

Occupational Health and Safety Council and Work Safe Alberta sponsor three Workplace Health and Safety Awards each year:

- the Workplace Health and Safety Leader Award;
- the Workplace Health and Safety Performance Improvement Award; and
- the Workplace Health and Safety Innovation Award.

The 2010 award winners have been announced.

Workplace Health and Safety Leader Award

The Health and Safety Leader Award recognizes an organization that leads its industry with an exemplary health and safety program and proven injury prevention track record. In 2010, Edmonton Exchanger & Refinery Services Ltd. and Champion Technologies Ltd. are the winners. Edmonton Exchanger recognizes that it cannot achieve its vision of "nobody gets hurt" with policies alone. It relies on the commitment of everyone to contribute to preventing injuries. It provides training, has accountability systems in place, and has multiple methods to assess how well its health and safety system is working. In addition, Edmonton Exchanger shares results with its clients, fellow contractors and unions. Champion Technologies has a strong demonstrated commitment to health and safety. It is a Partner in the *Partnerships in Injury Reduction* program and has also been recognized by Employment and Immigration as a Best Safety Performer for the past six years – a feat only accomplished by 22 other companies in this province.

Workplace Health and Safety Innovation Award

The Health and Safety Innovation Award recognizes individuals or organizations that have implemented a new, forward-thinking and original idea to create a safer, healthier workplace.

In 2010, Northern Platforms Ltd. and Colter Energy Services Inc. won the award. Northern Platforms Ltd. won the award for the NP Sampler: a device that allows the worker to gather a sample of dry bulk contents from a truck-trailer without climbing to the top of the trailer. Colter Energy Services Inc. won the award for the Wellhead Access Safety Platform (WASP): a self-contained, portable, hydraulic work platform for use during wellhead completion work.

Note 2.1
Information on the Workplace Health and Safety Awards program can be found online at:

http://employment.alberta.ca/SFW/5360.html

Health and Safety Performance Improvement Award

The Health and Safety Performance Improvement Award recognizes an organization that has dramatically improved its health and safety practices and significantly reduced its workplace injuries and illnesses.

In 2010, the Health and Safety Performance Improvement Award winners are Pollard Banknote Ltd. – Barrhead, Swamp Mats Inc., (a subsidiary of Horizon North), Van Houtte Coffee Services Inc. and St. Michael's Health Group.

Workplace health and safety information and communications continued to reach employers and workers

E&I continued to encourage health and safety awareness for both employers and workers by providing educational and promotional materials through the Work Safe Alberta Initiative. Some of the activities completed or initiated include:

- the development and release of best practice guideline for workplace health and safety during a pandemic
- continuing of the bloodylucky public awareness campaign to increase awareness of occupational health and safety of workers aged 15 – 19 years available at www.bloodylucky.ca;
- the development and implementation of a workplace health and safety video contest for high school students to increase their awareness of the importance of workplace health and safety. Winning videos may be viewed on the website at www.worksafe.alberta.ca;
- the annual implementation of Employer Injury and Illness Prevention Program to provide targeted inspections and proactive initiatives towards employers and industries with the highest injury and illness rates;
- the formation of a partnership with Alberta's industry and safety associations, called the Health and Safety Association Network, which aims to establish a province-wide worker safety training certification program.
- the implementation of the healthcare health and safety initiative to develop strategies and best practices to reduce workplace injuries and illness in the healthcare sector.
    - development of a series of best practice guidelines for the healthcare sector

For further information on Work Safe initiatives see, http://employment.alberta.ca/whs/

Employment Standards Contact Centre

The Employment Standards Contact Centre continued to assist Albertans by providing information about employment standards and workplace safety. The Employment Standards Contact Centre responded to over 118,320 calls and over 6,670 emails, and the Workplace Health and Safety Contact Centre responded to over 21,380 calls and over 230 emails.

Partnership and Certificate of Recognition Programs

Partnerships in Injury Reduction promote health and safety through partnerships with safety associations, industry groups, educational institutions and labour organizations. A Certificate of Recognition (COR) is given to employers who develop health and safety management systems that meet established standards. Certificates are issued by Certifying Partners and are co-signed by E&I. Achieving and maintaining a valid COR is required to earn a financial incentive through the WCB's Partnerships in Injury Reduction program.

The number of employers holding a valid COR increased from 7,603 in 2008 to 8,804 in 2009. For further information on Partnerships see, http://employment.alberta.ca/SFW/343.html

Fines penalize those who neglect safe work practices

In 2009, nine employers were prosecuted with violating the *Occupational Health and Safety Act.* The penalties resulting from these infractions totaled more than $1 million.

For more detailed information on the employers facing prosecution and violations of the *Occupational Health and Safety Act* see, http://employment.alberta.ca/prosecutions

PROVINCIAL SUMMARY

The positive trend continues: there were fewer injuries reported in 2009.

In recent years, improvements were made to the analysis of WCB claim information allowing for modified work claims to be analyzed alongside lost-time claims. Using modified work claim data in addition to lost-time claim data ensures a more comprehensive picture of workplace injuries, and allows for greater insight into incident prevention.

Note 3.1
- **The lost-time claim rate represents the probability or risk of an injury or disease to a worker requiring time away from work, during a period of one year of work.**
- **The disabling injury rate represents the probability or risk of a disabling injury.**

A lost-time claim is a claim submitted to the WCB for an occupational injury or disease that causes a worker to have time away from work beyond the day of injury. Included are claims receiving reimbursement of full or partial lost wages due to occupational illness or injury, or payment for permanent loss of function (for example, hearing loss).

A modified work claim is submitted for an occupational injury or disease where workers have their normal work duties altered enabling them to remain working without losing time from work. Included in the figures are claims where injured workers are helped back into the workplace with modified duties after time lost due to injury or disease, and cases where workers were provided modified duties prior to time lost because of an injury or disease.

Modifying an injured worker's duties can be beneficial for both an employer and an employee. For the employer, the financial cost of an absent worker can be high and returning an injured employee to work as soon as it is medically possible is important for properly managing compensation, disability claims and productivity levels. For the employee, returning to work as soon as medically possible is beneficial both physically and psychologically, and is linked to quicker recovery rates and higher self-esteem. Long absences from the workplace are also linked to decreases in labour market attachment.

The number of disabling injury claims reflects both the lost-time and modified work concepts and produces an overall figure where an occupational injury or disease disables a worker causing either time lost from work or for normal work duties to be modified.

In 2009, a total of 26,096 lost-time claims were accepted by WCB. This is a decrease of 16.9% from 2008. The person-years worked estimates decreased by 7.9% to 1,539,738 between 2008 and 2009 (see Table 3.1).

Table 3.1
Provincial Figures – Alberta: 2008 and 2009

	2008	2009	% Change
Person-years worked	1,671,916	**1,539,738**	-7.9%
Lost-time claims	31,410	**26,096**	-16.9%
Lost-time claim rate	1.88	**1.69**	**-9.8%**
Modified-work claims	51,725	**34,818**	-32.7%
Lost-time claims involving modified work	22,443	**13,409**	-40.3%
Disabling injury claims	60,692	**47,505**	-21.7%
Disabling injury rate	3.63	**3.09**	**-15.0%**
Duration rate	41	**40**	-3.2%
Days lost (LTC)	689,523	**614,757**	-10.8%
Transaction claim costs (LTC)	$211,054,921	**$195,089,312**	-7.6%

Note: Year-on-year growth rates are calculated from un-rounded data and may not match those produced from rounded figures.
Data Source: WCB Data, Prepared by Data Development and Evaluation

Expressed as a lost-time claim rate, the data translates into a rate of 1.69 per 100 person-years worked, a decrease of 9.8% from 2008. The 2009 lost-time claim rate is the lowest in the past nineteen years and since 1991, the lost-time claim rate has fallen by 59.1% (see Chart 3.1). The last five years has seen a fall in the lost-time claim rate of 29.7%. For reference, the 2009 lost-time claim rate of 1.69 injuries or diseases per 100 person-years worked translates into 8 injuries and diseases per million hours worked.

The total number of modified work claims submitted in 2009 was 34,818, a decrease of 32.7%. There were 13,409 claims involving both lost-time and modified work, a decrease of 40.3% from 2008. The number of disabling injury claims was 47,505, a decrease of 21.7% from 2008 (see Table 3.1). Expressed as a rate, the 2009 disabling injury rate was 3.09 per 100 person-years worked, a decrease of 15.0% from the 2008 rate of 3.63.

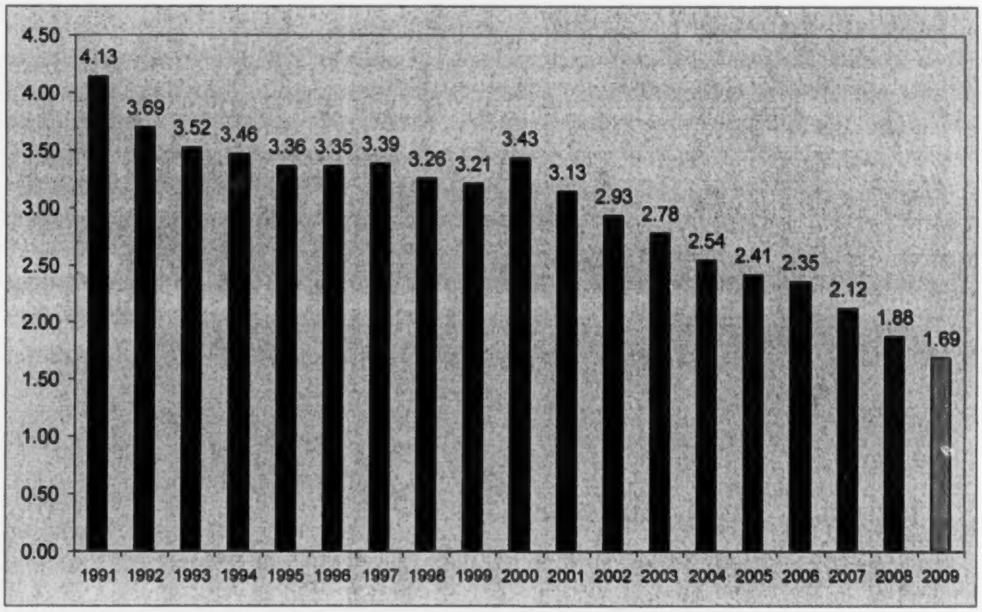
Note 3.2
Canadian research suggests that about 40% of workplace injuries go unreported. Severity of injury was the single best predictor of a worker filing for compensation *(Shannon and Lowe, 2002).*

An Ipsos-Reid survey of 1,200 North American workers found 3 in 10 Canadians know that employees report false injury claims and an equal number said that employees are afraid to report workplace incidents *(Workplace Today, 2003).*

Estimates of injury and disease severity are calculated using information on the number of days lost from work. Three basic measures of severity are the duration rate, median days lost from work and average days lost from work. The severity of the injuries and diseases fell in 2009, as reflected by a lower duration rate. The efforts of employers to introduce modified work programs to integrate injured workers back into the workforce also have a positive impact on work days lost. The duration rate of 40 days per 100 person-years worked was 3.2% lower than in 2008 (see Table 3.1). The median number of work days lost in 2009 was seven, the same as 2008, and the average days lost increased to 24, from 22 in 2008.

Chart 3.1

Lost-Time Claim Rate per 100 Person-years worked – Alberta: 1991-2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

The transaction claim costs[3] made in 2009 averaged $7,500 per lost-time claim. Over the life cycle of a lost-time claim however, average costs are higher. In 2009, the average fully-funded cost[4] of a lost-time claim was $21,500. The total days lost (relating to lost-time claims) in 2009 fell by 10.8% to 614,757.

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[3] Transaction claim costs include direct compensation costs, medical aid costs and pension costs.

[4] Fully-funded cost is an estimate of current and future costs arising from compensable injuries occurring in rate year, the future costs to administer these claims, and claim benefit liability adjustments relating to prior years' injuries.

Employer Size

Broken down by size[5], employers with 40 to 99 person-years worked and employers with 20 to 39 person-years worked had the highest lost-time claim rates in 2009, at 1.71 and 1.68 per 100 person-years worked respectively. Employers with 100 or more person-years worked had the highest disabling injury rate at 3.38 per 100 person-years worked (see Table 3.2).

The pattern of claim rates by employer size differs depending on the measure. Large employers have one of the lowest lost-time claim rates and yet highest disabling injury rates.

Table 3.2
Lost-Time Claim and Disabling Injury Rate by Size of Employer – Alberta: 2009

Size of Employer	Employer Accounts	Lost-Time Claims	Lost-Time Claim Rate	Disabling Injury Claims	Disabling Injury Rate
Less than 10 person-years worked	140,372	3,599	1.60	4,310	1.92
10 to 19 person-years worked	7,792	1,836	1.67	2,564	2.33
20 to 39 person-years worked	4,772	2,245	1.68	3,568	2.67
40 to 99 person-years worked	3,184	3,352	1.71	6,083	3.11
100 or more person-years worked	2,095	14,076	1.61	29,605	3.38
Unspecified*	307	988	N/A	1,375	N/A
Total	**158,522**	**26,096**	**1.69**	**47,505**	**3.09**

* These are employers with no supplied payroll information
Data Source: WCB Data, Prepared by Data Development and Evaluation

Distribution of Injury Claims

Table 3.3 presents figures for the proportion of employers without lost-time or disabling injury claims in 2009. Table 3.4 displays figures for the number of claims submitted by employers.

At the provincial level, 94% of employers had no lost-time claims and 93% had no disabling injury claims, meaning the injuries and diseases happening in the province are the result of incidents occurring at the operations of less than 10% of employers. These figures however, are influenced by employer size. In 2009, the number of employers with no lost-time claims and the number with no disabling injury claims translates to 40% and 33% of the total person-years worked in the province respectively (see Table 4.2).

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[5] Size is measured in terms of person-years worked. One person-year is equivalent to one full-time worker working for 2000 hours.

Table 3.3
Proportion of Employers with no Lost-Time or Disabling Injury Claims – Alberta: 2009

Proportion of Employers	With no Lost-Time Claims	With no Disabling Injury Claims
Alberta	94%	93%

Data Source: WCB Data, Prepared by Data Development and Evaluation

For employers with submitted claims, 66% submitted one lost-time claim, 27% two to five claims, and 7% six or more lost-time claims. For disabling injury claims, similar proportions exist although they reflect a higher prevalence of a wider range of injuries (see Table 3.4).

Table 3.4
Proportion of Employers with Claims – Alberta: 2009

1 Lost-Time Claim	2 to 5 Lost-Time Claims	6 to 20 Lost-Time Claims	Over 20 Lost-Time Claims
66%	27%	6%	1%
1 Disabling Injury Claim	**2 to 5 Disabling Injury Claims**	**6 to 20 Disabling Injury Claims**	**Over 20 Disabling Injury Claims**
58%	30%	9%	3%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Employers that submitted one to five lost-time claims and employers that submitted one to five disabling injury claims accounted for 29% and 26% of the total person-years worked in the province respectively. Employers that submitted six or more lost-time claims and employers that submitted six or more disabling injury claims accounted for 31% and 41% of the total person-years worked in the province.

National Occupational Injury and Fatality Data - 2008

Alberta's injury frequency can be compared nationally using information calculated by the Association of Workers' Compensation Boards Canada (AWCBC). Its methodology for calculating the person-years worked estimates produces higher estimates and lower rate figures, and cannot be compared directly to injury rates produced for this report. However, it is useful for comparing Alberta's performance against other provinces and nationally.

Table 3.5
Injury and Fatality Data by Province and Territory – Canada: 2008

Province	Lost Time Claims	Injury Frequency* (per 100 workers)	Number of Fatalities	Fatality Frequency* (per 100,000 workers)	% of Workforce Covered
Alberta (AB)	32,248	1.73	166	8.91	92%
British Columbia (BC)	63,159	2.96	160	7.50	93%
Manitoba (MB)	17,091	4.08	24	5.73	71%
New Brunswick (NB)	4,686	1.36	14	4.06	94%
Newfoundland and Labrador (NL)	4,239	2.15	23	11.67	98%
Nova Scotia (NS)	8,120	2.59	23	7.34	73%
Ontario (ON)	78,256	1.45	396	7.34	73%
Prince Edward Island (PE)	877	1.35	3	4.62	96%
Quebec (QC)	83,900	2.32	195	5.39	93%
Saskatchewan (SK)	13,731	3.57	26	6.76	74%
Yukon Territory	559	2.73	1	4.88	98%
Northwest Territories and Nunavut	936	2.51	5	13.41	100%
Canada	**307,802**	**2.12**	**1,036**	**7.14**	**83%**

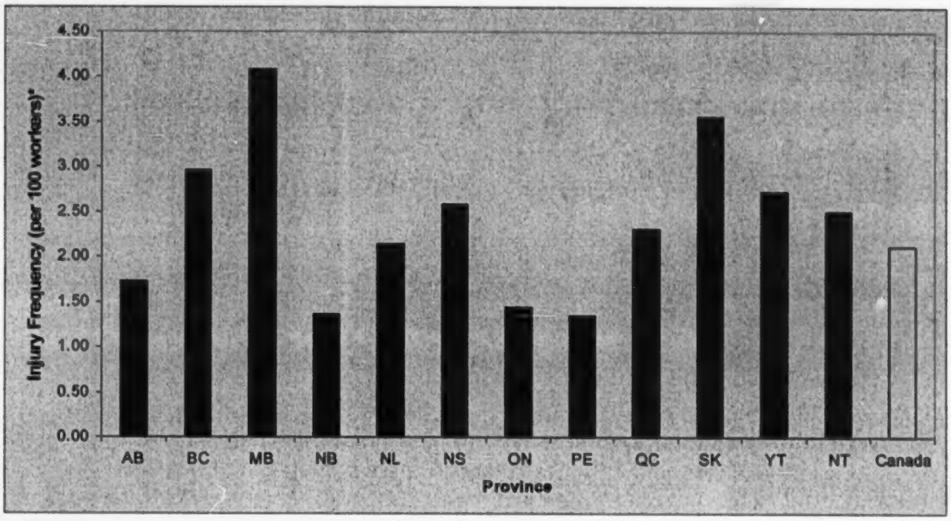
*See note 3.3
Data Source: CANSIM Labour Force Survey Series; AWCBC National Work Injury and Disease Statistics, 2009

In 2008, Alberta's injury frequency was 1.73 injuries per 100 workers, the fourth lowest in the country and lower than the national injury frequency of 2.12. However, Alberta had the third highest fatality frequency in the country at 8.91 fatalities per 100,000 workers. The national frequency was 7.14 per 100,000 workers (see Table 3.5).

A high injury frequency does not necessarily translate into a high fatality frequency. For instance, Manitoba has the highest injury frequency in the country, 4.08 per 100 workers, yet has the fifth lowest fatality frequency, 5.73 per 100,000 workers. Saskatchewan and British Columbia also follow this pattern (see Charts 3.3 and 3.4).

Note 3.3
The injury frequency data presented here and the lost-time claim rate, although similar, are calculated using different methodology and information. Thus, injury frequency, for the purposes of this publication, is used only as a measure of comparison purposes, not a representation of the provincial lost-time claim rate. The same relationship holds for the fatality frequency and fatality rate.

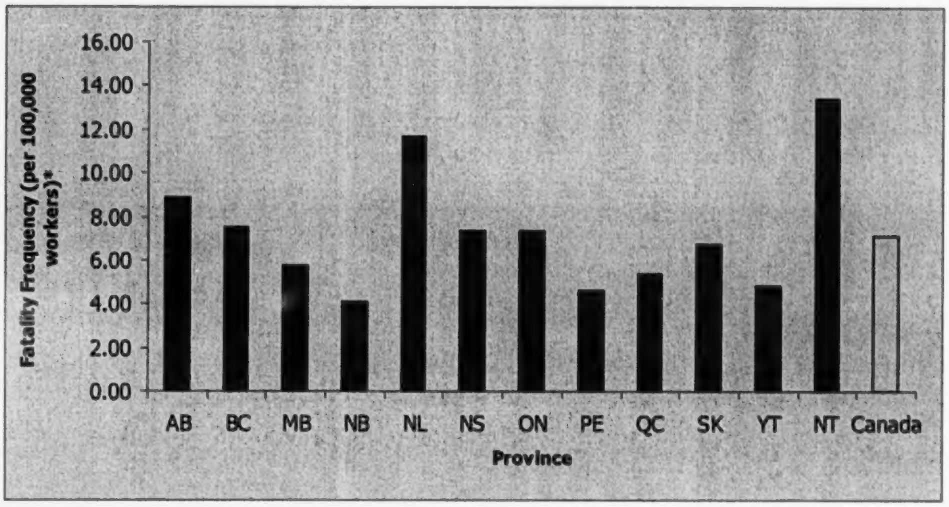
Chart 3.2
Injury Frequencies by Province – Canada: 2008



* See note 3.3

Data Source: AWCBC National Work Injury and Disease Statistics, 2009

Chart 3.3
Fatality Frequencies by Province – Canada: 2008



* See note 3.3

Data Source: CANSIM Labour Force Survey Series; AWCBC National Work Injury and Disease Statistics, 2009

SECTION

4

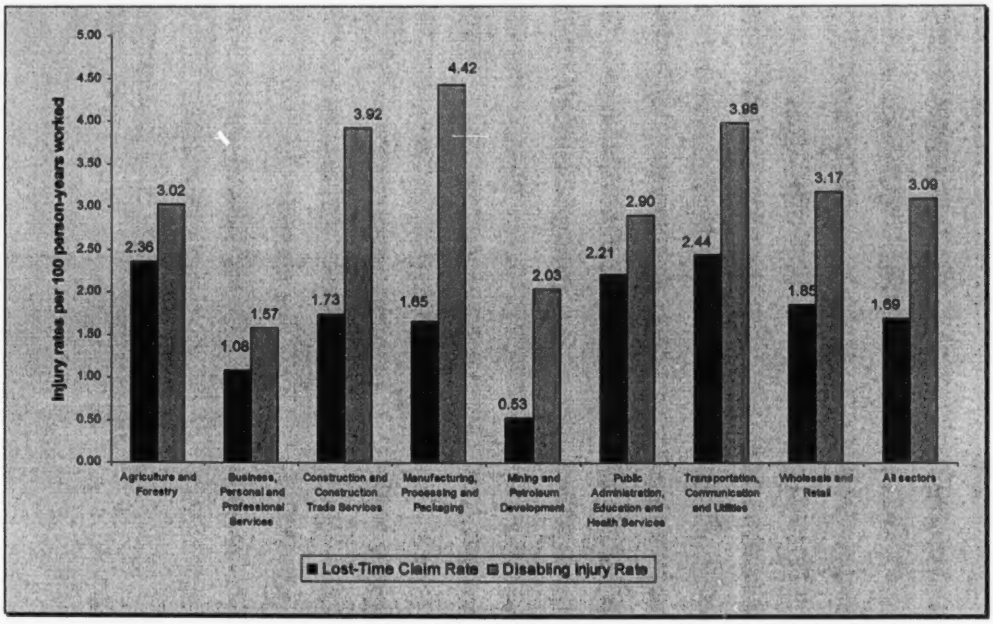
INDUSTRY SECTOR SUMMARY

The Manufacturing, Processing and Packaging sector and the Transportation, Communication and Utilities sector had the highest risk of occupational injury and disease.

The risk of occupational injury and disease varies significantly by industry sector and sub-sector. Chart 4.1 presents the lost-time claim and disabling injury rates by major industry sector. The Manufacturing, Processing and Packaging sector and the Transportation, Communication and Utilities sector had the highest disabling injury rates in 2009, at 4.42 and 3.98 per 100 person-years worked. The Transportation, Communication and Utilities sector and the Agriculture and Forestry sector had the highest lost-time claim rates at 2.44 and 2.36 per 100 person-years worked.

Chart 4.1

Lost-Time Claims and Disabling Injury Rates, by major industry sector – Alberta: 2009



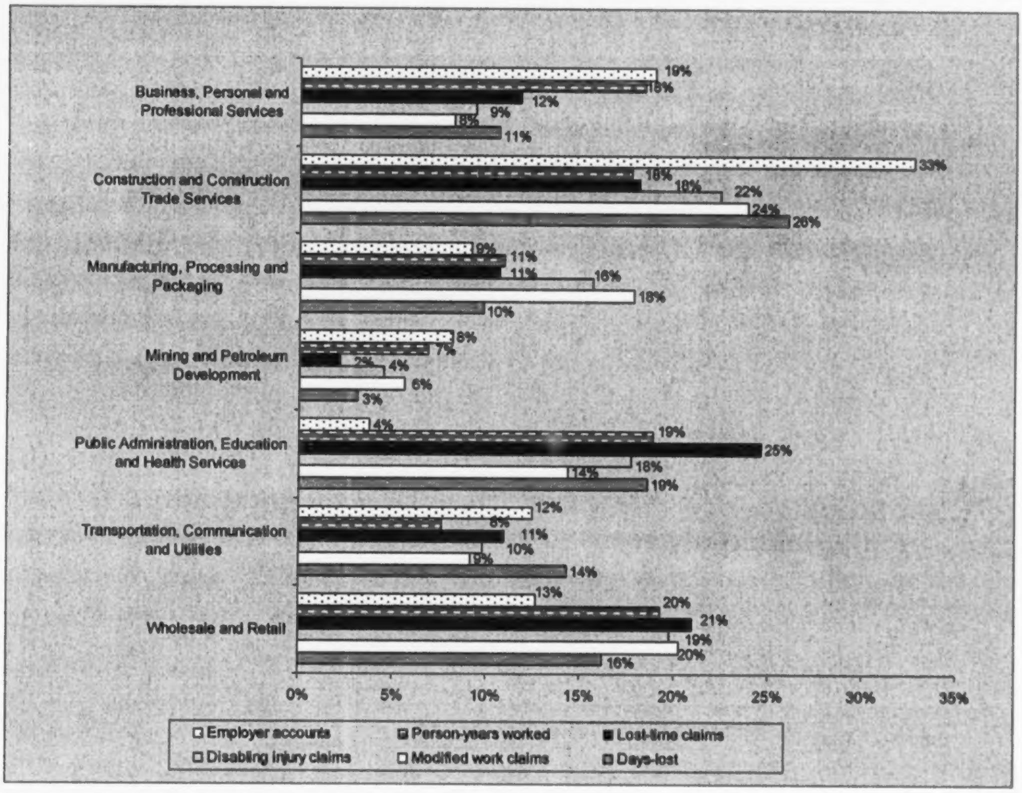
Data Source: WCB Data, Prepared by Data Development and Evaluation

The Business, Personal and Professional Services sector had the lowest disabling injury rate at 1.57 per 100 person-years worked and the Mining and Petroleum Development sector had the lowest lost-time claim rate at 0.53 per 100 person-years worked.

Chart 4.2 presents information on the proportion of employer accounts, person-years worked, injury claims and days lost for each major industry sector in Alberta. It is useful to understand the industry size and employer composition in each sector, alongside information on the types of injury claims submitted.

Chart 4.2

Proportion each Major Industry Sector[6] comprises of Employer Accounts, Total Person-years worked, Lost-Time Claims, Disabling Injury Claims, Modified Work Claims and Days-Lost – Alberta 2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

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[6] Agriculture and Forestry are removed from this analysis as they represent less than 1% of workers and claims.

The Manufacturing, Processing and Packaging sector represented 9% of employers and 11% of workers in 2009, yet accounted for 11%, 18% and 16% of the lost-time, modified work and disabling injury claims. The Construction and Construction Trade Services sector contained 33% of employers and 18% of workers covered, yet had 18% of the lost-time claims, 24% of the modified work claims and 22% of the total disabling injury claims. The Construction and Construction Trade Services sector had a high proportion of days lost (for claimants with lost-time) at 26%, reflecting longer recovery times required for workers to be medically able to return to work in this sector.

The Transportation, Communication and Utilities sector also had higher proportions of lost-time claims than workers covered, and higher proportions of modified work and disabling injury claims, although by a lesser amount. The Mining and Petroleum Development sector had a lower proportion of lost-time claims submitted than persons covered, but a similar proportion of modified work claims.

In contrast, the Business, Personal and Professional Services sector submitted lower proportions of lost-time, modified work and disabling injury claims to workers covered in these sectors.

The variations presented here likely reflect the different types of work occurring in these sectors and the different types of injuries. It also reflects different working and reporting practices of employers operating within these industries.

Distribution of Injury Claims

Table 4.1 presents figures for the proportion of employers without lost-time or disabling injury claims in 2009, by major industry sector. Table 4.2 displays figures on the proportion of the person-years worked accounted for by employers with no lost-time or disabling injury claims. Table 4.3 displays figures for the proportion of claims submitted by employers.

Table 4.1
Proportion of Employers with no Lost-Time or Disabling Injury Claims, by Major Industry Sector – Alberta: 2009

Proportion of Employers by Industry Sector	With no Lost-Time Claims	With no Disabling Injury Claims
Alberta	**94%**	**93%**
Agriculture and Forestry	95%	95%
Business, Personal and Professional Services	95%	95%
Construction and Construction Trade Services	95%	93%
Mining and Petroleum Development	98%	97%
Manufacturing, Processing and Packaging	91%	89%
Public Administration, Education and Health Services	86%	85%
Transportation, Communication, and Utilities	95%	94%
Wholesale and Retail	91%	90%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Five industry sectors had higher proportions of employers with no lost-time or disabling injury claims than the provincial average, indicating a more highly concentrated occurrence of injury in those sectors. These were the Agriculture and Forestry sector, the Business, Personal and Professional Services sector, the Construction and Construction Trade Services sector, the Mining and Petroleum Development sector and the Transportation, Communication, and Utilities sector (see Table 4.1). These figures however, are influenced by employer size. In 2009, the number of employers with no lost-time claims translates to 77%, 56%, 51%, 38% and 35% of the total person-years worked in these sectors respectively (see Table 4.2).

The Public Administration, Education and Health Services sector had the lowest proportion of employers with no lost-time or disabling injury claims, 86% and 85%, although the proportion of employers with no lost-time or disabling injury claims translates to 14% and 13% of the total person-years worked in this sector.

Table 4.2
Proportion of Person-years worked accounted for by Employers with no Lost-Time or Disabling Injury Claims, by Major Industry Sector – Alberta: 2009

Proportion of person-years accounted for by employers	With no Lost-Time Claims	With no Disabling Injury Claims
Alberta	**40%**	**33%**
Agriculture and Forestry	77%	72%
Business, Personal and Professional Services	56%	51%
Construction and Construction Trade Services	51%	38%
Mining and Petroleum Development	38%	25%
Manufacturing, Processing and Packaging	43%	30%
Public Administration, Education and Health Services	14%	13%
Transportation, Communication, and Utilities	35%	30%
Wholesale and Retail	41%	36%

Data Source: WCB Data, Prepared by Data Development and Evaluation

For employers with submitted claims, the Public Administration, Education and Health Services sector, the Mining and Petroleum Development sector and the Manufacturing, Processing and Packaging sector had the highest proportions submitting over six claims each. The Agriculture and Forestry sector, Construction and Construction Trade Services sector, the Business, Personal and Professional Services sector and the Transportation, Communication, and Utilities sector contained the highest proportion of employers with either one lost-time or one disabling injury claim submitted (see Table 4.3). This is partly a reflection of the risks of working in these sectors, but is also influenced by the number and size of employers in this sector.

Table 4.3
Proportion of Employers with Claims, by Major Industry Sector – Alberta: 2009

Major Industry Sector	1 Lost-Time Claim	2 to 5 Lost-Time Claims	6 to 20 Lost-Time Claims	Over 20 Lost-Time Claims
Agriculture and Forestry	81%	19%	1%	0%
Business, Personal and Professional Services	67%	26%	6%	1%
Construction and Construction Trade Services	73%	23%	3%	0%
Manufacturing, Processing and Packaging	62%	33%	5%	1%
Mining and Petroleum Development	65%	28%	7%	0%
Public Administration, Education and Health Services	40%	37%	17%	6%
Transportation, Communication, and Utilities	68%	24%	5%	3%
Wholesale and Retail	65%	29%	4%	1%

Major Industry Sector	1 Disabling Injury Claim	2 to 5 Disabling Injury Claims	6 to 20 Disabling Injury Claims	Over 20 Disabling Injury Claims
Agriculture and Forestry	75%	23%	2%	0%
Business, Personal and Professional Services	65%	26%	7%	2%
Construction and Construction Trade Services	63%	28%	7%	2%
Manufacturing, Processing and Packaging	48%	36%	12%	3%
Mining and Petroleum Development	51%	29%	15%	5%
Public Administration, Education and Health Services	36%	36%	20%	7%
Transportation, Communication, and Utilities	63%	25%	8%	4%
Wholesale and Retail	60%	31%	7%	2%

Data source: WCB data, Prepared by Data Development and Evaluation

SECTION

5

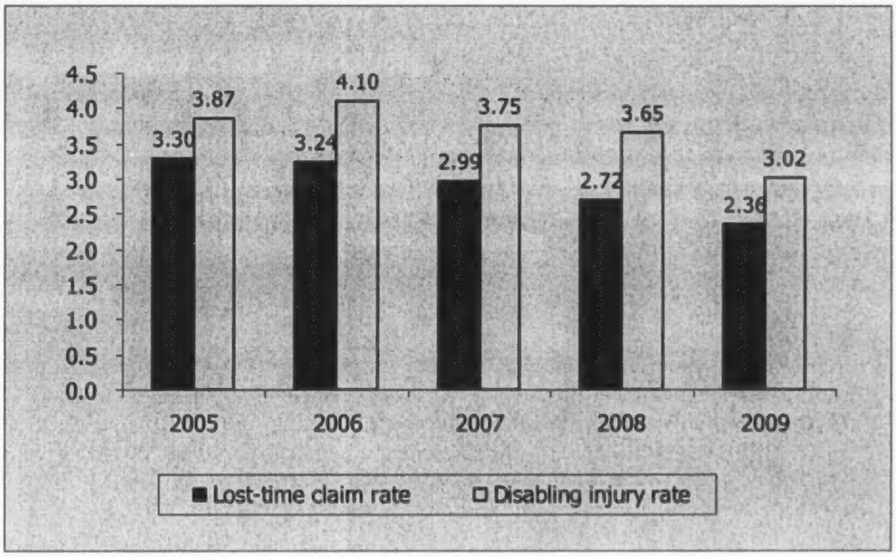
INDUSTRY SECTOR ANALYSIS

The risk of occupational injury and disease varies significantly by major industry sector as presented in Section 4. The following section presents a more in-depth breakdown of each major industry sector and sub-sectors.

Agriculture and Forestry

The Agriculture and Forestry sector includes vegetable farms, mushroom farms, apiaries, commercial hatcheries, feedlots, custom harvesting and baling, timber management and logging and related woodlands operations including the trucking of logs. Secondary processing, such as sawmills and pulp mills, are included in the Manufacturing, Processing and Packaging sector.

Chart 5.1
Agriculture and Forestry – Injury Rates: 2005-2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

In 2009, the Agriculture and Forestry sector had the second highest lost-time claim rate and the highest duration rate of all sectors, at 2.36 per 100 person-years worked and 99 days per 100 person-years worked, indicating a higher risk of injury requiring time away from work and longer recovery times from injury (see Charts 4.1, 4.2, 5.1

and Table 5.1). The disabling injury rate for this sector was 3.02 per 100 person-years worked, close to the provincial rate of 3.09.

In 2009, the Agriculture and Forestry sector lost-time claim rate decreased by 13.1% to 2.36 per 100 person-years worked from 2008, and by 28.5% since 2005. The fall in the lost-time claim rate over the last five years is largely the result of a decrease in the number of injury claims. The person-years worked estimates decreased by 20.6%, whereas the number of lost-time claims has decreased by 43.3%. The decrease in the lost-time claim rate in this sector is less than the average decrease seen for all sectors in the province since 2005, 29.7%. Since 2005, the disabling injury rate has decreased by 22.0% compared to a decrease of 23.3% for all sectors in the province.

In 2009, the number of lost-time claims decreased by 16.9% to 202 claims and the number of disabling injury claims decreased by 21.1% to 258. The number of modified work claims decreased by 36.4% to 124. Agriculture in Alberta is largely exempt from mandatory coverage with the WCB and figures are based on WCB covered employers (i.e. very few dairy farms, grain farms and ranches have WCB coverage for their workers). Other sources of information are available for this sector. The Farm Accident Monitoring System (FAMS) is one method used to record these injuries occurring on farm sites (see Note 5.1). The Department of Agriculture and Rural Development produces these figures.

Note 5.1
The Alberta Associates of Safe Rural Environments received reports for 532 injuries occurring on farm sites in 2009.
Highlights:

- **Over three-quarters of the cases involved males.**
- **36% were caused by livestock.**
- **15% of the cases were under the age of 18.**
- **The highest number of incidents was reported in the month of September (78 cases or 15%).**
- **Of the days of the week, the highest number of incidents occurred on a Monday.**

(FAMS: 2009 Farm Injury Report, March 2010).

Of the injury claims submitted to the WCB, men accounted for over three-quarters of the total claims in this sector, 78.7% of lost-time claims and 79.8% of disabling injury claims. Men were injured at a higher rate than women when compared to the proportion of employment, with women accounting for 27.2% of those employed compared to 72.8% for men.[7]

Young workers (those aged 15 to 24) accounted for 14.4% of the lost-time claims and 19.0% of the disabling injury claims, while comprising 8.3% of those in employment in 2009 (see Table 6.2). Just under half of all the disabling injury claims in this sector were from general farm workers, truck drivers and logging and forestry labourers, representing 18.2%, 18.2% and 8.9% of disabling injury claims respectively.

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[7] Statistics Canada's Labour Force Survey (2009 Historical Review) for Agriculture and Forestry and Logging with Support Activities industries. For more information, see Appendix A.

The most common nature of injury for disabling injury claims in this sector were sprains, strains and tears, accounting for 34.1% of claims, followed by fractures and dislocations, 20.6%. Other trunk (for example, shoulder or chest) was the most commonly injured body part in this sector, 18.0%, followed by the legs, 15.0%. Injuries to the back (including the spine and spinal cord) accounted for 13.9% of disabling injury claims and injuries to ankles and feet except toes, 10.9%.

The highest event types resulting in disabling injury in this sector were falls (on the same level), accounting for 15.7% of all claims in this sector, followed by being struck by objects, 13.9%. Transportation accidents and bodily reactions (for example, bending, climbing, slipping etc.) accounted for 10.1% and 9.7% respectively. The most common sources of disabling injury claims were contact with structures and surfaces, 30.3%, and person-injured or ill worker (self-injury or self-induced bodily motion injuries), 15.0%.

The median days lost due to injuries and diseases for the Agriculture and Forestry sector increased to 15 days in 2009 from 12 in 2008. The average days lost also increased to 42 days per claim in 2009, from 41 in 2008. The duration rate decreased to 99 per 100 person-years worked in 2009, from 112 in 2008. The median days lost, average days lost and the duration rate for this sector were the highest in the province.

Sub-Sector Analysis:

- In 2009, both the Agriculture and Forestry sub-sectors had lost-time claim rates and duration rates greater than the provincial average of 1.69 per 100 person-years worked and 24 days lost per 100 person-years worked. Disabling injury rates in the Agriculture sub-sector were lower than the provincial rate of 3.09 per 100 person-years worked, at 2.47 per 100 person-years worked, although higher in the Forestry sub-sector at 3.78.
- In 2009, the lost-time claim rate in the Agriculture sub-sector decreased by 22.4% to 2.15 per 100 person-years worked. For Forestry, the lost-time claim rate was unchanged as the number of lost-time claims went down by 14.4% while person-years worked decreased by 14.4%.
- Over the last five years the decrease in the lost-time claim rate in the Agriculture and Forestry sub-sectors is largely a result of the decrease in lost-time claims. Agriculture displayed a decrease in lost-time claims of 43.7% and Forestry 42.8%. Person-years worked estimates for the Agriculture sub-sector decreased by 4.6%. For the Forestry sub-sector, person-years worked decreased by 35.7%.
- In 2009, the disabling injury rate decreased in the Agriculture sub-sector by 29.9% to 2.47 per 100 person-years worked. This is a result of the decrease in the number of disabling injury claims. The Forestry sub-sector recorded a 0.6% decrease in the disabling injury rate, to 3.78 per 100 person-years worked, a result of the number of claims declining at a greater rate than the person-years worked.

- The duration rate for the Agriculture sub-sector decreased by 8.5% to 88 days lost per 100 person-years worked, compared to a decrease of 11.5% in the Forestry sub-sector, to 115 days lost per 100 person-years worked (see Table 5.1).

Table 5.1
Agriculture and Forestry Sector – Alberta: 2008 and 2009

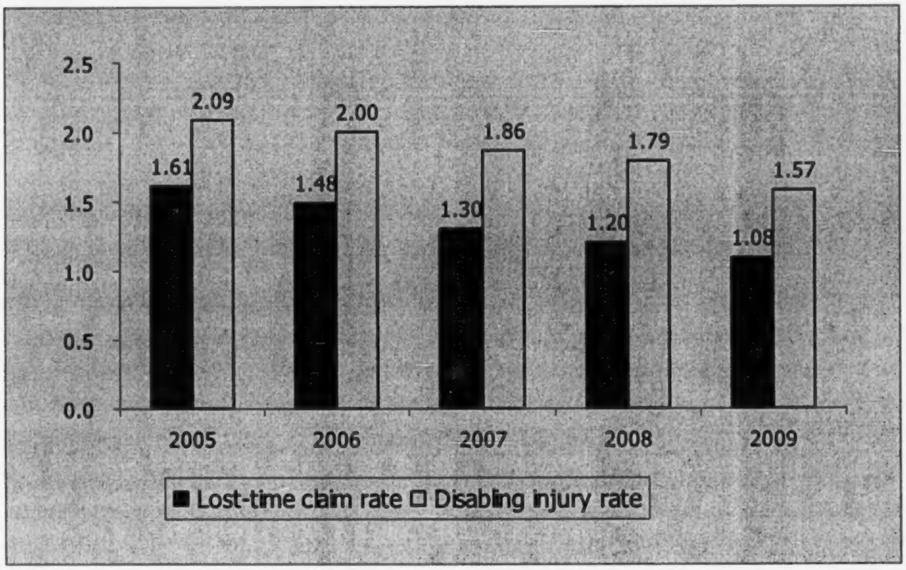
Industry Sector		**2008**	**2009**	**% Change**
Agriculture and Forestry	Estimated person-years worked	8,947	**8,557**	-4.4%
	Lost-time claims	243	**202**	-16.9%
	Lost-time claim rate	2.72	**2.36**	-13.1%
	Modified-work claims	195	**124**	-36.4%
	Disabling injury claims	327	**258**	-21.1%
	Disabling injury rate	3.66	**3.02**	-17.4%
	Duration rate	112	**99**	-11.3%
Sub-Sector		**2008**	**2009**	**% Change**
Agriculture	Estimated person-years worked	4,767	**4,981**	4.5%
	Lost-time claims	132	**107**	-18.9%
	Lost-time claim rate	2.77	**2.15**	-22.4%
	Modified-work claims	104	**59**	-43.3%
	Disabling injury claims	168	**123**	-26.8%
	Disabling injury rate	3.52	**2.47**	-29.9%
	Duration rate	96	**88**	-8.5%
Forestry	Estimated person-years worked	4,180	**3,576**	-14.4%
	Lost-time claims	111	**95**	-14.4%
	Lost-time claim rate	2.66	**2.66**	0.0%
	Modified-work claims	91	**65**	-28.6%
	Disabling injury claims	159	**135**	-15.1%
	Disabling injury rate	3.80	**3.78**	-0.6%
	Duration rate	130	**115**	-11.5%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Business, Personal and Professional Services

The Business, Personal and Professional Services sector includes building and grounds maintenance, financial, real estate and insurance services, office labour services, engineering, architectural and research services, restaurant, hotel and recreation services, security services, private health and social services, and veterinary services.

Chart 5.2
Business, Personal and Professional Services Sector[8] – Injury Rates: 2005-2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

In 2009, the lost-time claim rate for this sector was the second lowest of all sectors in the province at 1.08 per 100 person-years worked. It was also the sector with the lowest disabling injury rate at 1.57 per 100 person-years worked, and second lowest duration rate, 23 days lost per 100 person-years worked.

The lost-time claim rate decreased by 10.1% in 2009. The total number of lost-time claims decreased by 11.0% to 3,064, while the number of person-years worked decreased by 1.4% (see Chart 5.2 and Table 5.2). Since 2005, the lost-time claim rate has fallen by 32.7%, higher than the average decrease seen for all sectors in the province over the same time period, 29.7%. The disabling injury rate decreased by 12.2% in 2009, as proportionately there were fewer claims. Since 2005, the disabling injury rate has decreased by 24.8% compared to the decrease of 23.3% for all sectors in the province.

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[8] In 2007, industry 82800 (Seniors' Supportive Living/Lodges) was reclassified from the Business, Personal and Professional Services sector to the Public Administration, Education and Health sector. The injury rates presented in Chart 5.2 have been revised accordingly.

The number of modified work claims decreased in 2009 by 29.4% to 2,857, while the number of disabling injury claims decreased by 13.4% to 4,439.

In the Business, Personal and Professional Services sector 53.2% of the lost-time and 51.7% of the disabling injury claims involved women, with women accounting for 50.8% of those in employment[9]. Young workers were injured at a higher rate in this sector than other age groups, accounting for 22.4% of lost-time and 23.5% of disabling injury claims while constituting 19.2% of employment (see Table 6.2). Over 40% of disabling injury claims were from the following occupation groups: cooks, 10.9%, food counter attendants, 9.7%. janitors, caretakers and building superintendents, 9.3%, light duty cleaners, 6.5% and food and beverage servers, 4.6%.

The most common nature of injury for disabling injury claims in this sector were sprains, strains and tears, accounting for 46.7% of all claims, open wounds, 12.4% and surface wounds and bruises, 11.8%. The back (including the spine and spinal cord) was the most common body part injured in this sector, 21.3%, followed by wrists and hands, 13.4%, and fingers, 11.4%.

The highest event types resulting in disabling injury in this sector were falls (on the same level), 17.9%, overexertion, 17.5%, and being struck by objects, 13.4%. The most common sources of disabling injury claims were contact with structures and surfaces, 23.7%, and person-injured or ill worker (self-injury or self-induced bodily motion injuries), 19.1%, and containers, 13.2%.

The median days lost due to injuries and diseases for the Business, Personal and Professional Services sector remained at six in 2009, the average days lost was 21 days per claim, rising from 20 in 2008. The duration rate decreased to 23 days lost per 100 person-years worked in 2009, down from 24 in 2008.

Sub-Sector Analysis:

- A larger decrease in lost-time claims than person-years worked caused the decrease in lost-time claim rate for this sector, as proportionately there were fewer claims.
- The two largest sub-sectors, Restaurant, Hotel and Recreation Services and Other Business, Personal and Professional Services, accounted for 46.0% and

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[9] Statistics Canada's Labour Force Survey (2009 Historical Review) for the Finance, Insurance, Real Estate and Leasing industry, the Professional, Scientific and Technical Services industry, the Business, Building and Other Support Services industry, Information, Culture and Recreation industry and the Accommodation and Food Services industry. For more information, see Appendix A.

17.9% of total person-years worked in 2009. Restaurant, Hotel and Recreation Services sub-sector saw a decrease in lost-time claim rate of 14.8% and Other Business, Personal and Professional Services sub-sector saw an increase in lost-time claim rate of 6.9%, due to an increase in lost-time claims and a decrease in person-years worked.

- The lost-time and disabling injury claim rates of all sub-sectors were lower than the average rate for all sectors of the province (see Table 5.2) of 1.69 and 3.09 per 100 person-years worked.
- Eight of nine sub-sectors had duration rate lower than the average rate for all sectors of the province, 40 days.

Table 5.2
Business, Personal and Professional Services Sector – Alberta: 2008 and 2009

Industry Sector		**2008**	**2009**	**% Change**
Business, Personal and Professional Services	Estimated person-years worked	286,667	**282,560**	-1.4%
	Lost-time claims	3,442	**3,064**	-11.0%
	Lost-time claim rate	1.20	**1.08**	-10.1%
	Modified-work claims	4,049	**2,857**	-29.4%
	Disabling injury claims	5,128	**4,439**	-13.4%
	Disabling injury rate	1.79	**1.57**	-12.2%
	Duration rate	24	**23**	-4.4%
Sub-Sector		**2008**	**2009**	**% Change**
Animal Care Services	Estimated person-years worked	3,118	**3,440**	10.3%
	Lost-time claims	55	**64**	16.4%
	Lost-time claim rate	1.76	**1.86**	5.4%
	Modified-work claims	56	**54**	-3.6%
	Disabling injury claims	67	**76**	13.4%
	Disabling injury rate	2.15	**2.21**	2.8%
	Duration rate	25	**21**	-17.6%
Building and Ground Maintenance	Estimated person-years worked	14,511	**15,447**	6.4%
	Lost-time claims	210	**230**	9.5%
	Lost-time claim rate	1.45	**1.49**	3.0%
	Modified-work claims	286	**214**	-25.2%
	Disabling injury claims	343	**326**	-5.0%
	Disabling injury rate	2.36	**2.11**	-10.7%
	Duration rate	32	**35**	7.5%
Engineering, Architectural, Designing and Research Services	Estimated person-years worked	42,737	**36,909**	-13.6%
	Lost-time claims	75	**67**	-10.7%
	Lost-time claim rate	0.18	**0.18**	2.9%
	Modified-work claims	148	**117**	-20.9%
	Disabling injury claims	167	**140**	-16.2%
	Disabling injury rate	0.39	**0.38**	-2.8%
	Duration rate	4	**4**	-12.9%
Environmental Services	Estimated person-years worked	3,699	**3,299**	-10.8%
	Lost-time claims	15	**15**	0.0%
	Lost-time claim rate	0.41	**0.45**	10.8%
	Modified-work claims	23	**22**	-4.3%
	Disabling injury claims	29	**24**	-17.2%
	Disabling injury rate	0.78	**0.73**	-6.9%
	Duration rate*	N/A	**N/A**	N/A

Table 5.2 (continued)
Business, Personal and Professional Services Sector – Alberta: 2008 and 2009

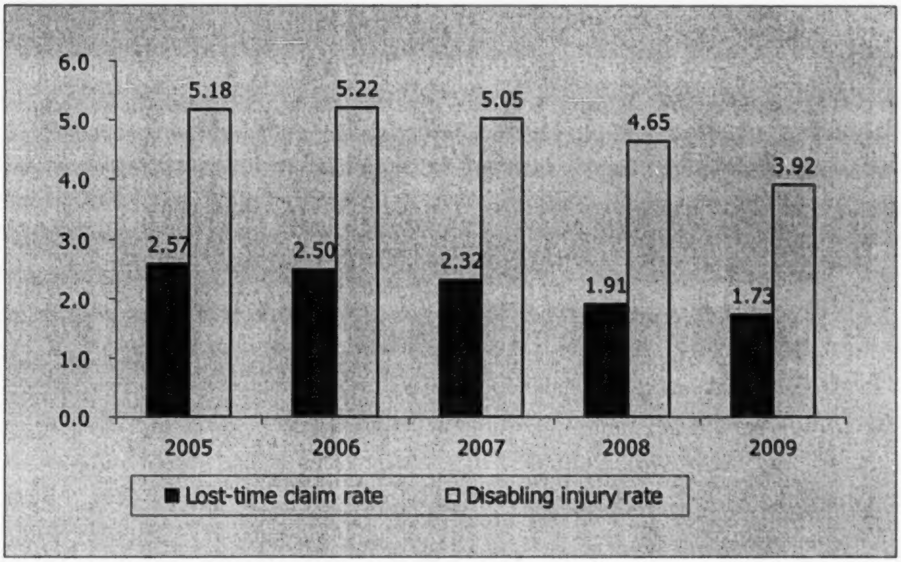
Sub-Sector		2008	2009	% Change
Personal Services-Maintenance	Estimated person-years worked	15,682	**16,444**	4.9%
	Lost-time claims	251	**255**	1.6%
	Lost-time claim rate	1.60	**1.55**	-3.2%
	Modified-work claims	279	**201**	-28.0%
	Disabling injury claims	357	**341**	-4.5%
	Disabling injury rate	2.28	**2.07**	-9.1%
	Duration rate	40	**51**	28.9%
Restaurant, Hotel and Recreation Services	Estimated person-years worked	131,596	**129,895**	-1.3%
	Lost-time claims	2,270	**1,907**	-16.0%
	Lost-time claim rate	1.73	**1.47**	-14.8%
	Modified-work claims	2,631	**1,702**	-35.3%
	Disabling injury claims	3,371	**2,740**	-18.7%
	Disabling injury rate	2.56	**2.11**	-17.6%
	Duration rate	34	**31**	-10.5%
Other Personal Services	Estimated person-years worked	13,222	**13,679**	3.5%
	Lost-time claims	172	**119**	-30.8%
	Lost-time claim rate	1.30	**0.87**	-33.1%
	Modified-work claims	206	**151**	-26.7%
	Disabling injury claims	254	**210**	-17.3%
	Disabling injury rate	1.92	**1.54**	-19.8%
	Duration rate	21	**17**	-20.5%
Private Health Services and Seniors Accommodations	Estimated person-years worked	10,701	**12,762**	19.3%
	Lost-time claims	67	**61**	-9.0%
	Lost-time claim rate	0.63	**0.48**	-23.3%
	Modified-work claims	78	**88**	12.8%
	Disabling injury claims	96	**104**	8.3%
	Disabling injury rate	0.90	**0.81**	-9.7%
	Duration rate	8	**6**	-21.7%
Other	Estimated person-years worked	51,400	**50,686**	-1.4%
	Lost-time claims	327	**346**	5.8%
	Lost-time claim rate	0.64	**0.68**	6.9%
	Modified-work claims	342	**308**	-9.9%
	Disabling injury claims	444	**478**	7.7%
	Disabling injury rate	0.86	**0.94**	8.8%
	Duration rate	12	**13**	10.1%

*Duration rates are not calculated when there are fewer than 30 lost-time claims.
Data Source: WCB Data, Prepared by Data Development and Evaluation.

Construction and Construction Trade Services

The Construction and Construction Trade Services sector includes residential construction, industrial construction, road building, industrial labour and specialized construction trades such as roofing, plumbing, painting, electrical wiring, bricklaying and masonry.

Chart 5.3
Construction and Construction Trade Services Sector – Injury Rates: 2005-2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

In 2009, the lost-time claim rate for this sector was the fourth lowest of all sectors in the province at 1.73 per 100 person-years worked. It was also the sector with the third highest disabling injury rate, 3.92 per 100 person-years worked.

In 2009, the lost-time claim rate decreased by 9.4%. The number of lost-time claims decreased by 21.7% and the person-years worked decreased by 13.7%, meaning that proportionately, there were fewer claims. Since 2005, the lost-time claim rate has fallen by 32.7%, a larger decrease than the average fall seen for all sectors in the province, 29.7%. The disabling injury rate in 2009 was 3.92 per 100 person-years worked, a decrease of 15.7% from 2008 and 24.3% decrease compared to 2005 (see Chart 5.3).

The majority of claims in this sector were from men who accounted for 93.6% of lost-time claims and 93.1% of the disabling injury claims. Men represented 86.8% of those in employment.[10] Young workers aged 15 to 24 years accounted for 18.2% of lost-time claims, 20.6% of disabling injury claims and 16.3% of those in employment (see Table 6.2). By occupation, 13.9% of disabling injury claimants were construction trades helpers and labourers, 8.0% were carpenters, 7.3% were electricians (except industrial and power system electricians) and 3.9% were heavy equipment operators (except crane).

The leading nature of injury in this sector was sprains, strains and tears, accounting for 48.1% of all disabling injury claims, followed by surface wounds and bruises, 12.5%, and open wounds, 12.1%. The main parts of body injured were the back (including the spine and spinal cord), 21.3% and other trunk, 13.2%. Injuries to legs and fingers accounted for 11.9% and 11.4% of the disabling injury claims. Injuries to wrists and hands, and injuries to ankles and feet accounted for 10.6% and 10.2% of disabling injury claims.

The main sources of injury that resulted in disabling injury claims in this sector were parts and materials, 20.8%, structures and surfaces, 19.8%, and person-injured or ill worker (self-injury or self-induced bodily motion injuries), 19.5%. The main event types were overexertion, at 19.4% and struck by object, 16.0%, followed by bodily reaction, 15.2%.

The median days lost due to injuries and diseases for the Construction and Construction Trade Services Sector increased to 12; the average days lost increased to 34 days per claim from 32 in 2008. The duration rate was the third highest of all major sectors at 59 days lost per 100 person-years worked, although it decreased from 2008 by 3.8%.

Sub-Sector Analysis:

- In 2009, the five largest sub-sectors experienced larger decrease in lost-time claims than person-years worked, meaning that proportionately, there were fewer injuries in these sub-sectors (see Table 5.3). These were the Construction Trade Services sub-sector, the Industrial Construction sub-sector, the Mechanical, Electrical and Insulation sub-sector, the Roadbuilders sub-sector and the Other Construction sub-sector.
- The lost-time claim rate was lower than the provincial rate in four sub-sectors: Industrial Construction, Roadbuilders, Scaffolders and Other Construction.
- Duration rates for all sub-sectors were greater than the provincial average of 40 days lost per 100 person-years worked, with the exception of Mechanical, Electrical and Insulation with 37 days lost per 100 person-years worked and Scaffolders with 33 days lost per 100 person-years worked.

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[10] Statistics Canada's Labour Force Survey (2009 Historical Review) for the Construction industry. For more information, see Appendix A.

- The disabling injury rate was higher than the provincial average in all sub-sectors, with the exception of Other Construction with 2.74 per 100 person-years worked. The Doors and Glass Installation and Repair sub-sector had the highest rate at 6.33 per 100 person-years worked, followed by the Scaffolders sub-sector with 5.99 per 100 person-years worked.

Table 5.3
Construction and Construction Trade Services Sector – Alberta: 2008 and 2009

Industry Sector		2008	2009	% Change
Construction and Construction Trade Services	Estimated person-years worked	315,213	**271,901**	-13.7%
	Lost-time claims	6,020	**4,713**	-21.7%
	Lost-time claim rate	1.91	**1.73**	-9.4%
	Modified-work claims	12,530	**8,309**	-33.7%
	Disabling injury claims	14,658	**10,660**	-27.3%
	Disabling injury rate	4.65	**3.92**	-15.7%
	Duration rate	61	**59**	-3.8%
Sub-Sector		**2008**	**2009**	**% Change**
Construction Trade Services	Estimated person-years worked	56,394	**50,746**	-10.0%
	Lost-time claims	1,631	**1,360**	-16.6%
	Lost-time claim rate	2.89	**2.68**	-7.3%
	Modified-work claims	1,425	**1,036**	-27.3%
	Disabling injury claims	2,154	**1,821**	-15.5%
	Disabling injury rate	3.82	**3.59**	-6.0%
	Duration rate	98	**97**	-1.2%
Doors and Glass Installation and Repair	Estimated person-years worked	9,236	**8,505**	-7.9%
	Lost-time claims	289	**221**	-23.5%
	Lost-time claim rate	3.13	**2.60**	-16.9%
	Modified-work claims	748	**443**	-40.8%
	Disabling injury claims	812	**538**	-33.7%
	Disabling injury rate	8.79	**6.33**	-28.0%
	Duration rate	62	**56**	-10.0%
Industrial Construction	Estimated person-years worked	74,920	**63,701**	-15.0%
	Lost-time claims	1,216	**951**	-21.8%
	Lost-time claim rate	1.62	**1.49**	-8.2%
	Modified-work claims	4,131	**2,671**	-35.3%
	Disabling injury claims	4,490	**3,095**	-31.1%
	Disabling injury rate	5.99	**4.86**	-18.9%
	Duration rate	53	**52**	-3.1%
Mechanical, Electrical and Insulation	Estimated person-years worked	54,117	**45,515**	-15.9%
	Lost-time claims	976	**798**	-18.2%
	Lost-time claim rate	1.80	**1.75**	-3.0%
	Modified-work claims	2,129	**1,509**	-29.1%
	Disabling injury claims	2,457	**1,858**	-24.4%
	Disabling injury rate	4.54	**4.08**	-10.1%
	Duration rate	39	**37**	-3.3%

Table 5.3 (continued)

Construction and Construction Trade Services Sector – Alberta: 2008 and 2009

Sub-Sector		2008	2009	% Change
Roadbuilders	Estimated person-years worked	45,661	**37,892**	-17.0%
	Lost-time claims	721	**522**	-27.6%
	Lost-time claim rate	1.58	**1.38**	-12.6%
	Modified-work claims	1,597	**993**	-37.8%
	Disabling injury claims	1,844	**1,280**	-30.6%
	Disabling injury rate	4.04	**3.38**	-16.3%
	Duration rate	53	**58**	9.0%
Roofers	Estimated person-years worked	6,220	**5,924**	-4.8%
	Lost-time claims	221	**183**	-17.2%
	Lost-time claim rate	3.55	**3.09**	-13.0%
	Modified-work claims	272	**206**	-24.3%
	Disabling injury claims	363	**306**	-15.7%
	Disabling injury rate	5.84	**5.17**	-11.4%
	Duration rate	175	**158**	-9.9%
Scaffolders	Estimated person-years worked	4,974	**3,973**	-20.1%
	Lost-time claims	26	**40**	53.8%
	Lost-time claim rate	0.52	**1.01**	93.1%
	Modified-work claims	282	**226**	-19.9%
	Disabling injury claims	290	**238**	-17.9%
	Disabling injury rate	5.83	**5.99**	2.7%
	Duration rate	37	**33**	-10.1%
Other	Estimated person-years worked	63,692	**55,645**	-12.6%
	Lost-time claims	940	**638**	-32.1%
	Lost-time claim rate	1.48	**1.15**	-22.1%
	Modified-work claims	1,946	**1,225**	-37.1%
	Disabling injury claims	2,248	**1,524**	-32.2%
	Disabling injury rate	3.53	**2.74**	-22.4%
	Duration rate	54	**42**	-20.7%

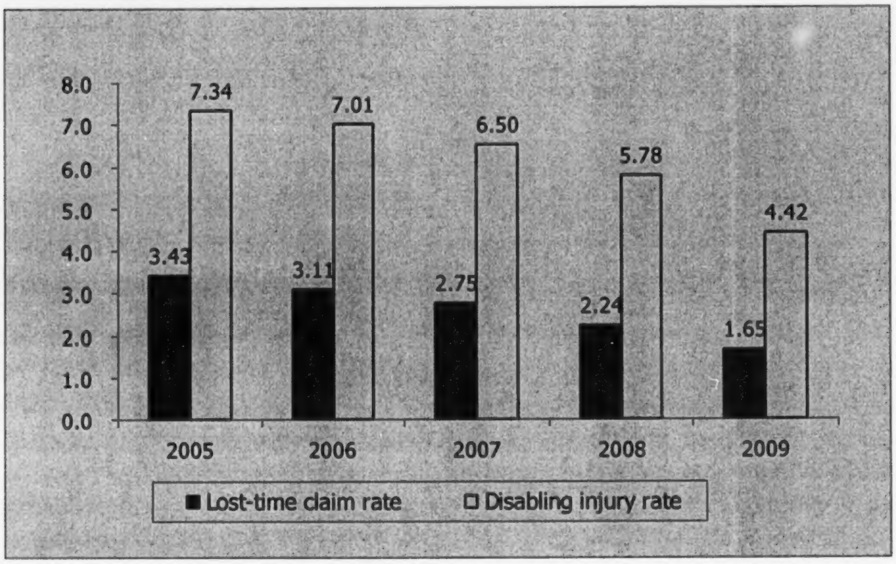
Data Source: WCB Data, Prepared by Data Development and Evaluation

Manufacturing, Processing and Packaging

The Manufacturing, Processing and Packaging sector includes meat, hides and pelts, clothing and textiles, food and beverage products, wood products, furniture and allied products, printing and publishing, rubber, clay and concrete products, metal foundries and products, instrumentation, fertilizer, petrochemical and plastic products and crude oil refining.

Chart 5.4

Manufacturing, Processing and Packaging Sector – Injury Rates: 2005-2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

In 2009, the lost-time claim rate for this sector was 1.65 per 100 person-years worked. It was the sector with the highest disabling injury rate, 4.42 per 100 person-years worked (see Chart 4.1).

The lost-time claim rate for the Manufacturing, Processing and Packaging sector decreased in 2009 by 26.4% from 2008, as proportionately there were fewer injury claims. The number of lost-time claims decreased by 36.4% to 2,771 and the person-years worked estimates decreased by 13.9% (see Table 5.4). Over the last five years, this sector has seen a fall in the lost-time claim rate of 51.7% compared to the average fall for all sectors in the province, 29.7%. The disabling injury rate in 2009 was 4.42 per 100 person-years worked, a 23.5% fall from 2008.

In 2009, young workers accounted for 13.3% of lost-time claims, 14.5% of disabling injury claims and 11.1% of those in employment[11] (see Table 6.2). Men accounted for 84.5% of the total lost-time claims, 85.3% of disabling injury claims, while comprising 77.1% of those in employment. Welders and related machine operators experienced the largest number of injuries and diseases in this sector by occupation, with 10.7% of disabling injury claims, followed by industrial butchers, meat cutters and poultry preparers, 10.1%, and labourers in food, beverage and tobacco processing, 8.3%. Other occupations involving labourers also featured prominently. Other labourers in processing, manufacturing and utilities accounted for 6.8% of disabling injury claims, material handlers, 4.9%, other trades helpers and labourers, 4.6%, construction trades helpers and labourers, 3.1%, truck drivers, 2.7%, and machinists and machining and tooling inspectors, 2.7%.

The leading nature of injury in this sector was sprains, strains and tears, accounting for 39.9% of the disabling injury claims in this sector, followed by surface wounds and bruises, 15.3%, and open wounds 14.6%. The main parts of body injured were the back (including the spine and spinal cord), 18.7%, and fingers and fingernails, 16.4%. Injuries to other trunk accounted for 13.7%.

The main sources of injury that resulted in disabling injury claims were person-injured or ill worker (self-injury or self-induced bodily motion injuries), 21.0%, parts and materials, 20.2%, followed by structures and surfaces, 11.8%. The main event types were overexertion, at 21.0%, struck by object, 18.1%, and bodily reaction, 10.5%.

The disabling injury rate continued to be the highest of all industry sectors while the median days lost, six, and the average days lost, 22, were some of the lowest in the province. The duration rate was 36 days lost per 100 person-years worked, lower than the average for all sectors of the province, 40.

Sub-Sector Analysis:

- In 2009, the largest sub-sector, Primary Metal Products, accounting for 34.9% of the person-years worked in the Manufacturing, Processing and Packaging sector, displayed a decrease in lost-time claims of 41.5% and a 15.7% decrease in person-years worked.
- Other large sub-sectors, the Wood Products sub-sector, the Feed, Seed, Food and Beverage Products sub-sector, the Gases, Fertilizer, Petrochemicals Refining and Manufacturing sub-sector, the Industrial Equipment sub-sector, the Printed and Published Products sub-sector and the Meat, Hides and Pelt Products sub-sector displayed a similar trend to the Primary Metal Products sub-sector, meaning that proportionately there were fewer lost-time claims in these sub-sectors.

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[11] Statistics Canada's Labour Force Survey (2009 Historical Review) for the Manufacturing industry. For more information see Appendix A.

- The lost-time claim and disabling injury rates were lower than the provincial rate for five sub-sectors: Gases, Fertilizer, Petrochemicals, Refining and Manufacturing sub-sector, Industrial Equipment sub-sector, Printed and Published Products sub-sector, Clothing and Textile Products sub-sector, and the Other Manufacturing, Processing and Packaging sub-sector.
- The Meat, Hides and Pelt Products sub-sector displays the highest disabling injury rates of all the sub-sectors in Manufacturing, Processing and Packaging, and also one of the highest provincially. In 2009, its disabling injury rate was 13.2 per 100 person-years worked, over four times higher than the average for all sub-sectors in the province. Its lost-time claim rate was also greater than the average for all sub-sectors in the province.

Table 5.4
Manufacturing, Processing and Packaging Sector – Alberta: 2008 and 2009

Industry Sector		2008	2009	% Change
Manufacturing, Processing and Packaging	Estimated person-years worked	194,572	167,542	-13.9%
	Lost-time claims	4,360	2,771	-36.4%
	Lost-time claim rate	2.24	1.65	-26.4%
	Modified-work claims	10,295	6,207	-39.7%
	Disabling injury claims	11,245	7,413	-34.1%
	Disabling injury rate	5.78	4.42	-23.5%
	Duration rate	40	36	-11.0%
Sub-Sector		**2008**	**2009**	**% Change**
Clothing and Textile Products	Estimated person-years worked	2,311	1,912	-17.3%
	Lost-time claims	27	16	-40.7%
	Lost-time claim rate	1.17	0.84	-28.1%
	Modified-work claims	25	16	-36.0%
	Disabling injury claims	36	27	-25.0%
	Disabling injury rate	1.56	1.41	-9.5%
	Duration rate*	N/A	N/A	N/A
Feed, Seed, Food and Beverage Products	Estimated person-years worked	16,071	15,536	-3.3%
	Lost-time claims	527	376	-28.7%
	Lost-time claim rate	3.28	2.42	-26.2%
	Modified-work claims	934	663	-29.0%
	Disabling injury claims	1,010	803	-20.5%
	Disabling injury rate	6.29	5.17	-17.7%
	Duration rate	50	38	-24.0%
Foundries (not Steel), Rubber and Nonmetallic Products	Estimated person-years worked	9,411	7,217	-23.3%
	Lost-time claims	253	160	-36.8%
	Lost-time claim rate	2.69	2.22	-17.4%
	Modified-work claims	484	309	-36.2%
	Disabling injury claims	564	372	-34.0%
	Disabling injury rate	5.99	5.15	-14.1%
	Duration rate	74	57	-23.2%
Furniture and Allied Products	Estimated person-years worked	3,032	2,625	-13.4%
	Lost-time claims	73	79	8.2%
	Lost-time claim rate	2.41	3.01	25.0%
	Modified-work claims	115	75	-34.8%
	Disabling injury claims	133	116	-12.8%
	Disabling injury rate	4.39	4.42	0.8%
	Duration rate	41	83	101.9%

*Duration rates are not calculated when there are fewer than 30 lost-time claims.

Table 5.4 (continued)
Manufacturing, Processing and Packaging Sector – Alberta: 2008 and 2009

Sub-Sector		2008	2009	% Change
Gases, Fertilizer, Petro-chemicals Refining and Manufacturing	Estimated person-years worked	15,275	**14,759**	-3.4%
	Lost-time claims	29	**22**	-24.1%
	Lost-time claim rate	0.19	**0.15**	-21.1%
	Modified-work claims	92	**76**	-17.4%
	Disabling injury claims	101	**86**	-14.9%
	Disabling injury rate	0.66	**0.58**	-12.3%
	Duration rate*	N/A	**N/A**	N/A
Industrial Equipment	Estimated person-years worked	11,782	**10,690**	-9.3%
	Lost-time claims	99	**65**	-34.3%
	Lost-time claim rate	0.84	**0.61**	-27.4%
	Modified-work claims	331	**214**	-35.3%
	Disabling injury claims	357	**239**	-33.1%
	Disabling injury rate	3.03	**2.24**	-26.1%
	Duration rate	14	**14**	1.6%
Meat, Hides and Pelt Products	Estimated person-years worked	13,279	**13,029**	-1.9%
	Lost-time claims	509	**330**	-35.2%
	Lost-time claim rate	3.83	**2.53**	-34.0%
	Modified-work claims	2,052	**1,637**	-20.2%
	Disabling injury claims	2,090	**1,725**	-17.5%
	Disabling injury rate	15.74	**13.24**	-15.9%
	Duration rate	53	**37**	-30.5%
Plastic Products	Estimated person-years worked	4,847	**3,726**	-23.1%
	Lost-time claims	112	**62**	-44.6%
	Lost-time claim rate	2.31	**1.66**	-28.2%
	Modified-work claims	277	**152**	-45.1%
	Disabling injury claims	297	**175**	-41.1%
	Disabling injury rate	6.13	**4.70**	-23.3%
	Duration rate	44	**27**	-38.6%
Primary Metal (esp. Steel) Products	Estimated person-years worked	69,267	**58,409**	-15.7%
	Lost-time claims	1,770	**1,035**	-41.5%
	Lost-time claim rate	2.56	**1.77**	-30.7%
	Modified-work claims	3,959	**2,012**	-49.2%
	Disabling injury claims	4,393	**2,535**	-42.3%
	Disabling injury rate	6.34	**4.34**	-31.6%
	Duration rate	45	**42**	-6.3%

*Duration rates are not calculated when there are fewer than 30 lost-time claims.

Table 5.4 (continued)
Manufacturing, Processing and Packaging Sector – Alberta: 2008 and 2009

Sub-Sector		2008	2009	% Change
Printed and Published Products	Estimated person-years worked	12,069	**10,118**	-16.2%
	Lost-time claims	130	**127**	-2.3%
	Lost-time claim rate	1.08	**1.26**	17.0%
	Modified-work claims	204	**152**	-25.5%
	Disabling injury claims	245	**219**	-10.6%
	Disabling injury rate	2.03	**2.16**	6.4%
	Duration rate	21	**29**	40.4%
Wood Products	Estimated person-years worked	25,481	**20,411**	-19.9%
	Lost-time claims	655	**391**	-40.3%
	Lost-time claim rate	2.57	**1.92**	-25.3%
	Modified-work claims	1,604	**762**	-52.5%
	Disabling injury claims	1,739	**929**	-46.6%
	Disabling injury rate	6.83	**4.55**	-33.3%
	Duration rate	52	**45**	-13.1%
Other	Estimated person-years worked	11,748	**9,109**	-22.5%
	Lost-time claims	176	**108**	-38.6%
	Lost-time claim rate	1.50	**1.19**	-20.6%
	Modified-work claims	218	**139**	-36.2%
	Disabling injury claims	280	**187**	-33.2%
	Disabling injury rate	2.38	**2.05**	-14.0%
	Duration rate	34	**34**	-2.5%

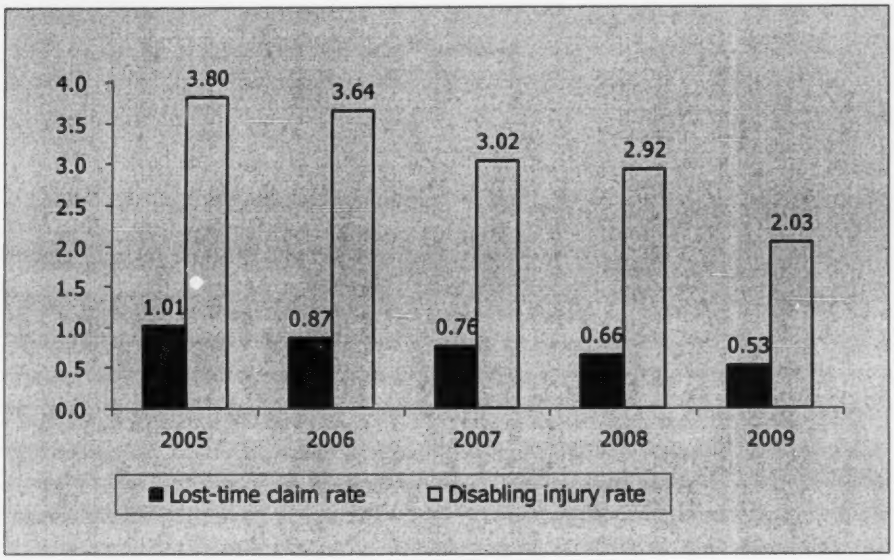
*Duration rates are not calculated when there are fewer than 30 lost-time claims.
Data Source: WCB Data, Prepared by Data Development and Evaluation

Mining and Petroleum Development

The Mining and Petroleum Development sector includes underground mining, open pit mining, mining and processing of oil sands, oil or gas pipeline transmission and upstream oil and gas industries such as seismic exploration, drilling of wells, well servicing with service rigs, oilfield downhole services and upstream production. Secondary processing activities such as oil refineries and petrochemical manufacturing are included in the Manufacturing, Processing and Packaging sector.

Chart 5.5

Mining and Petroleum Development Sector – Injury Rates: 2005-2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

In 2009, the lost-time claim rate for this sector was the lowest of all sectors in the province at 0.53 per 100 person-years worked. It was also the sector with the second-lowest disabling injury rate, 2.03 per 100 person-years worked (see Chart 4.1).

The lost-time claim rate decreased by 19.1% in 2009, a result of lost-time claims decreasing by 31.9% and person-years worked decreasing by 16.0% from 2008. Since 2005, the lost-time claim rate has fallen by 47.6%, greater than the average decrease for all sectors of the province, 29.7%. The disabling injury rate decreased in 2009 by 30.6% from 2008, a result of a greater decrease in the number of disabling injury claims than the decrease in the number of person-years worked.

The greatest proportion of lost-time and disabling injury claims involved men, at 93.9% and 92.7%. In 2009, men accounted for 75.6% of those in employment.[12] Women, on the other hand, accounted for 6.1% of the lost-time and 7.3% of the disabling injury claims and 24.4% of those in employment. This separation is likely due to occupational differences between the genders in this industry.

Young workers accounted for 12.0% of lost-time claims, 17.9% of disabling injury claims yet 13.2% of employment[13] (see Table 6.2). By occupation group, oil and gas drilling, servicing and related labourers accounted for 23.1% of disabling injury claims, and heavy equipment operators (except crane) at 15.5%. This was followed by oil and gas well drilling workers and services operators, 7.0%, and oil and gas well drillers, servicers, testers and related workers, 5.7%.

The leading nature of injury in this sector was sprains, strains and tears, accounting for 45.7% of disabling injury claims, followed by other traumatic injuries and diseases, 14.8%, and surface wounds and bruises, 12.5%. The main parts of body injured were the back (including the spine and spinal cord), 19.4%, legs, 12.9% and other trunk, 12.7%.

The main sources of injury that resulted in disabling injury claims were person-injured or ill worker (self-injury or self-induced bodily motion injuries), 19.2%, parts and materials, 17.3%, followed by structures and surfaces, 15.0%. The main event type was bodily reaction, 15.1%. This was followed by overexertion, 14.6% and struck by object, 13.9%.

The median days lost due to injuries and diseases for the Mining and Petroleum Development sector decreased to 11 days. The average days lost was 34 days per claim, up from 32 in 2008. The duration rate for this sector was 18 days lost per 100 person-years worked. The average duration rate for all sectors of the province was 40 days lost per 100 person-years worked.

Sub-Sector Analysis:

- In 2009, the largest sub-sector, Petroleum Producers and Exploration, accounting for 41.1% of the person-years worked in the Mining and Petroleum Development sector, displayed a decrease in the disabling injury rate, 18.3%, as proportionately there were fewer claims. This was a result of a 33.9% decrease in disabling injury claims. Lost-time claims decreased by 13.8% and person-years worked decreased by 19.6%.
- Four sub-sectors had lost-time claim and disabling injury rates lower than the provincial level; the Oilfield Services sub-sector, the Petroleum Producer and Exploration sub-sector, the Pipeline Cleaning and Transmission sub-sector and the Other Mining and Petroleum sub-sector.

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[12] Statistics Canada's Labour Force Survey (2009 Historical Review) for the Mining and Oil and Gas Extraction industry. For more information, see Appendix A.

[13] Statistics Canada's Labour Force Survey (2009 Historical Review). For more information see Appendix A.

- Three sub-sectors had lower lost-time claim rates than the average rates for all sectors in the province, but higher disabling injury rates. These sub-sectors were Coal Mining, Drilling Services, and Mining and Processing Other Than Coal Mining.
- Duration rates were lower in all sub-sectors than the average for all sectors in the province, with the exception of the Drilling Services sub-sector. In 2009, this sub-sector had a duration rate of 70 days lost per 100 person-years worked.

Table 5.5
Mining and Petroleum Development Sector – Alberta: 2008 and 2009

Industry Sector		2008	2009	% Change
Mining and Petroleum Development	Estimated person-years worked	124,992	**104,957**	-16.0%
	Lost-time claims	819	**558**	-31.9%
	Lost-time claim rate	0.66	**0.53**	-19.1%
	Modified-work claims	3,515	**1,940**	-44.8%
	Disabling injury claims	3,653	**2,131**	-41.7%
	Disabling injury rate	2.92	**2.03**	-30.6%
	Duration rate	21	**18**	-12.3%
Sub-Sector		**2008**	**2009**	**% Change**
Coal Mining	Estimated person-years worked	5,222	**5,018**	-3.9%
	Lost-time claims	66	**45**	-31.8%
	Lost-time claim rate	1.26	**0.90**	-28.8%
	Modified-work claims	323	**197**	-39.0%
	Disabling injury claims	338	**207**	-38.8%
	Disabling injury rate	6.47	**4.13**	-36.2%
	Duration rate	33	**22**	-34.3%
Drilling Services	Estimated person-years worked	12,942	**8,072**	-37.6%
	Lost-time claims	205	**102**	-50.2%
	Lost-time claim rate	1.58	**1.26**	-20.5%
	Modified-work claims	857	**314**	-63.4%
	Disabling injury claims	890	**355**	-60.1%
	Disabling injury rate	6.88	**4.40**	-36.0%
	Duration rate	63	**70**	10.1%
Mining and Processing Other Than Coal Mining	Estimated person-years worked	14,559	**14,660**	0.7%
	Lost-time claims	64	**63**	-1.6%
	Lost-time claim rate	0.44	**0.43**	-2.3%
	Modified-work claims	487	**490**	0.6%
	Disabling injury claims	493	**503**	2.0%
	Disabling injury rate	3.39	**3.43**	1.3%
	Duration rate	8	**9**	7.5%
Oilfield Services	Estimated person-years worked	27,441	**23,921**	-12.8%
	Lost-time claims	305	**186**	-39.0%
	Lost-time claim rate	1.11	**0.78**	-29.8%
	Modified-work claims	1,365	**644**	-52.8%
	Disabling injury claims	1,400	**695**	-50.4%
	Disabling injury rate	5.10	**2.91**	-43.0%
	Duration rate	37	**29**	-21.6%

Table 5.5 (continued)
Mining and Petroleum Development Sector – Alberta: 2008 and 2009

Sub-Sector		2008	2009	% Change
Petroleum Producers and Exploration	Estimated person-years worked	53,619	43,088	-19.6%
	Lost-time claims	123	106	-13.8%
	Lost-time claim rate	0.23	0.25	9.2%
	Modified-work claims	374	226	-39.6%
	Disabling injury claims	407	269	-33.9%
	Disabling injury rate	0.76	0.62	-18.3%
	Duration rate	5	5	1.6%
Pipeline Cleaning and Transmission	Estimated person-years worked	5,247	5,195	-1.0%
	Lost-time claims	14	10	-28.6%
	Lost-time claim rate	0.27	0.19	-28.8%
	Modified-work claims	16	13	-18.8%
	Disabling injury claims	19	19	0.0%
	Disabling injury rate	0.36	0.37	2.2%
	Duration rate*	N/A	N/A	N/A
Other	Estimated person-years worked	5,963	5,003	-16.1%
	Lost-time claims	42	46	9.5%
	Lost-time claim rate	0.70	0.92	30.7%
	Modified-work claims	93	56	-39.8%
	Disabling injury claims	106	83	-21.7%
	Disabling injury rate	1.78	1.66	-6.6%
	Duration rate	28	35	27.9%

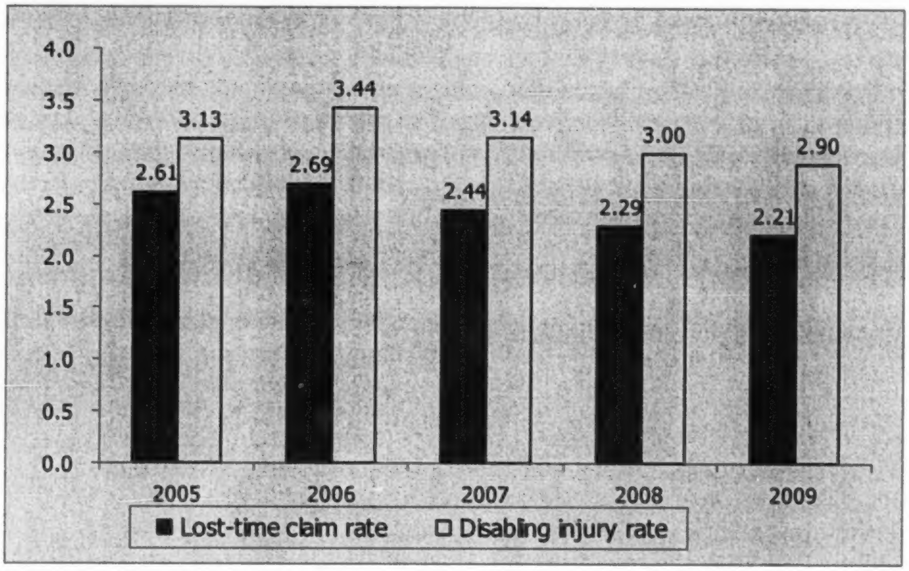
*Duration Rates are not calculated when there are fewer than 30 lost-time claims.
Data Source: WCB Data, Prepared by Data Development and Evaluation

Public Administration, Education and Health Services

Public Administration includes the Government of Alberta and its agencies and all forms of local government including cities (including fire-fighters and other emergency services), towns, villages and municipal districts. Education services include universities, colleges, business schools, driving schools, kindergartens, museums and libraries. Health services include health care centres, long term care facilities and home support services.

Chart 5.6

Public Administration, Education and Health Services Sector[14] – Injury Rates: 2005-2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

In 2009, the lost-time claim rate for this sector was the third highest of all sectors in the province at 2.21 per 100 person-years worked. It was also the sector with the third lowest disabling injury rate, 2.90 per 100 person-years worked (see Chart 4.1). Based on person-years worked, Public Administration, Education and Health Services was the second largest sector in Alberta after the Wholesale and Retail sector.

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[14] In 2007, industry 82800 (Seniors' Supportive Living/Lodges) was reclassified from the Business, Personal and Professional Services sector to the Public Administration, Education and Health sector. The injury rates presented in Chart 5.6 have been revised accordingly.

In 2009, the lost-time claim rate for the Public Administration, Education and Health Services sector decreased by 3.4% to 2.21 per 100 person-years worked. The total number of lost-time claims decreased by 3.8% while person-years worked decreased by 0.4%. Over the last five years this sector has seen a 15.5% fall in the lost-time claim rate compared to an average 29.7% fall for all sectors in the province. In 2009, the disabling injury rate decreased by 3.4% to 2.90 per 100 person-years worked, due to a greater decrease in number of disabling injury claims than decrease in number of person-years worked (see Table 5.6).

The Public Administration, Education and Health Services sector was one of two sectors where most of the claims involved women. The other sector was the Business, Personal and Professional Services sector. Women accounted for 66.4% and 63.6% of lost-time and disabling injury claims in the Public Administration, Education and Health Services sector, although they accounted for 73.1% of those in employment[15].

Young workers aged 15 to 24 years accounted for 9.6% of the lost-time and 10.7% of the disabling injuries in this sector, while composing 8.8% of employment (see Table 6.2). By occupation, 15.7% of the disabling injury claims were from nurse aides, orderlies and patient service associates, and 8.0% from registered nurses. Visiting homemakers, housekeepers and related occupations accounted for 4.4% of the disabling injury claims.

The leading nature of injury in this sector was sprains, strains and tears, accounting for 61.3% of disabling injury claims, followed by other traumatic injuries and diseases, 10.3% and surface wounds and bruises, 10.1%. The main parts of body injured were the back (including the spine and spinal cord), 27.4%, and other trunk 15.0%.

The main sources of injury that resulted in disabling injury claims in this sector were person-other than injured or ill worker, 20.8%, and structures and surfaces, 19.8%. The main event type was overexertion 29.1%, followed by fall on the same level, 15.7%, and bodily reaction, 14.3%.

The median days lost due to injuries and diseases for the Public Administration, Education and Health Services Sector remain at five days; the average days lost was 18 days per claim, up from 17 in 2008. The average figures for all sectors of the province were seven and 24.

Sub-Sector Analysis:

- Aside from the Health and Social Services sub-sector which experienced increases in lost-time claims and person-years worked, most of the large sub-sectors saw decreases in lost-time claims, disabling injury claims and person-years worked.

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[15] Statistics Canada's Labour Force Survey (2009 Historical Review) for the Public Administration, Health Care and Social Assistance and Educational Services industries. For more information, see Appendix A.

- The Health Care Centres, Health and Social Services and Municipal Services sub-sectors had lost-time claim rates and disabling injury rates that exceeded both the average for this sector and the average for all sectors in the province.
- The duration rate of the Health Care Centres sub-sector, Health and Social Services sub-sector and Municipal Services sub-sector were all greater than the average duration rate for all sectors in the province, 40 (see Table 5.6).

Table 5.6

Public Administration, Education and Health Services Sector – Alberta: 2008 and 2009

Industry Sector		**2008**	**2009**	**% Change**
Public Administration, Education and Health Services	Estimated person-years worked	292,136	**290,944**	-0.4%
	Lost-time claims	6,681	**6,428**	-3.8%
	Lost-time claim rate	2.29	**2.21**	-3.4%
	Modified-work claims	6,754	**4,996**	-26.0%
	Disabling injury claims	8,767	**8,423**	-3.9%
	Disabling injury rate	3.00	**2.90**	-3.4%
	Duration rate	39	**39**	1.5%
Sub-Sector		**2008**	**2009**	**% Change**
Alberta Government Public Services	Estimated person-years worked	30,779	**29,029**	-5.7%
	Lost-time claims	422	**362**	-14.2%
	Lost-time claim rate	1.37	**1.25**	-8.8%
	Modified-work claims	313	**227**	-27.5%
	Disabling injury claims	536	**475**	-11.4%
	Disabling injury rate	1.74	**1.64**	-5.8%
	Duration rate	27	**32**	20.1%
Education, Museums and Libraries	Estimated person-years worked	80,798	**78,964**	-2.3%
	Lost-time claims	798	**775**	-2.9%
	Lost-time claim rate	0.99	**0.98**	-0.8%
	Modified-work claims	885	**660**	-25.4%
	Disabling injury claims	1,080	**1,040**	-3.7%
	Disabling injury rate	1.34	**1.32**	-1.3%
	Duration rate	18	**19**	6.7%
Health Care Centres	Estimated person-years worked	70,461	**66,817**	-5.2%
	Lost-time claims	2,033	**1,916**	-5.8%
	Lost-time claim rate	2.89	**2.87**	-0.5%
	Modified-work claims	1,809	**1,141**	-36.9%
	Disabling injury claims	2,380	**2,169**	-8.9%
	Disabling injury rate	3.38	**3.25**	-3.8%
	Duration rate	51	**53**	3.1%
Health & Social Services	Estimated person-years worked	56,142	**59,642**	6.2%
	Lost-time claims	1,761	**1,780**	1.1%
	Lost-time claim rate	3.14	**2.98**	-5.0%
	Modified-work claims	1,947	**1,433**	-26.4%
	Disabling injury claims	2,412	**2,348**	-2.7%
	Disabling injury rate	4.30	**3.94**	-8.3%
	Duration rate	44	**47**	8.0%

Table 5.6 (Continued)

Public Administration, Education and Health Services Sector – Alberta: 2008 and 2009

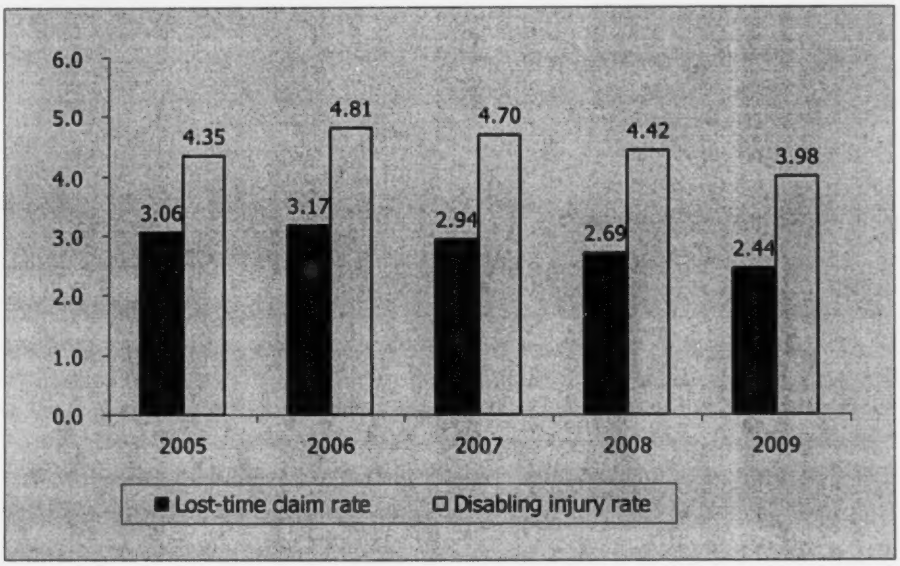
Sub-Sector		2008	2009	% Change
Municipal Services	Estimated person-years worked	52,955	**55,314**	4.5%
	Lost-time claims	1,645	**1,573**	-4.4%
	Lost-time claim rate	3.11	**2.84**	-8.6%
	Modified-work claims	1,770	**1,514**	-14.5%
	Disabling injury claims	2,321	**2,358**	1.6%
	Disabling injury rate	4.38	**4.26**	-2.8%
	Duration rate	54	**46**	-14.6%
Other Public Administration	Estimated person-years worked	1,002	**1,177**	17.5%
	Lost-time claims	22	**22**	0.0%
	Lost-time claim rate	2.20	**1.87**	-14.8%
	Modified-work claims	30	**21**	-30.0%
	Disabling injury claims	38	**33**	-13.2%
	Disabling injury rate	3.79	**2.80**	-26.1%
	Duration rate*	N/A	**N/A**	N/A

*Duration Rates are not calculated when there are fewer than 30 lost-time claims.
Data Source: WCB Data, Prepared by Data Development and Evaluation

Transportation, Communication and Utilities

The Transportation, Communication and Utilities sector consists of various modes of transportation (air, rail, truck, bus, taxi cab and limousine services), assorted methods of communication and entertainment (radio, television, movies, live theatre, telecommunications and cable vision) and utilities (electricity, natural gas, garbage collection, recycling and disposal).

Chart 5.7
Transportation, Communication and Utilities Sector – Injury Rates: 2005-2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

The lost-time claim rate decreased by 9.5% in 2009, to 2.44 per 100 person-years worked. The number of lost-time claims decreased by 17.9% and the number of person-years worked decreased by 9.5%. Since 2005, the lost-time claim rate has fallen by 20.2%, lower than the average decrease for all sectors of the province, 29.7%. The disabling injury rate decreased in 2009 by 9.9%, due to a decrease in disabling injury claims of 18.4% (see Table 5.7).

In this sector, 9.8% and 13.2% of the lost-time claims and disabling injury claims were from young workers aged 15 to 24, who composed 8.2% of those in employment[16] (see Table 6.2). Men accounted for 82.9% of lost-time claims and 82.9% of disabling injury claims and 75.0% of those in employment. Truck drivers led all occupations, accounting for 29.0% of the total disabling injury claims. This was followed by material handlers and shippers and receivers, with 7.9% and 5.5% of the disabling injury claims.

The leading nature of injury or disease in this sector was sprains, strains and tears, accounting for 55.8% of all disabling injury claims. This was followed by surface wounds and bruises and other traumatic injuries and diseases, accounting for 12.3% and 11.5% of disabling injuries. The back (including spinal cord) was the body part most affected by disabling work incidents, accounting for 24.4% of injuries. Other trunk accounted for 14.1% of the disabling injury claims, followed by legs, 11.3%.

The leading source of injury was structures and surfaces, at 20.8%, followed by person – ill or injured worker (self-injured persons, bodily conditions, and self-induced bodily motion injuries), 18.1%, and containers, 16.8%. Overexertion was the leading type of event accounting for 24.4% of disabling injuries, then fall on same level, 13.9%, and bodily reaction, 13.5%.

The median days lost due to injuries and diseases for the Transportation, Communication and Utilities sector remained at nine. The average days lost increased to 31 days per claim from 27 in 2008. The comparable figures for all sectors of the province were seven and 24 respectively.

Sub-Sector Analysis:

- In 2009, Trucking Services, the largest sub-sector accounting for 41.4% of the person-years worked, saw a decrease in the lost-time claim rate of 12.0%. This was a result of a decrease in lost-time claims of 22.2% and a decrease in person-years worked of 11.5%. The duration rate for this sub-sector was over three times the provincial average, at 123 days-lost per 100 person-years worked, compared to 40.
- Four industry sub-sectors experienced a decrease in both their lost-time claim and disabling injury rates. These were the Garbage Collection, Recycle, Disposal and Towing Services sub-sector, the Rail Services sub-sector, the Trucking Services sub-sector and the Other Transportation, Communication, and Utilities sub-sector.
- The Utilities sub-sector had the lowest lost-time claim rate of 0.48 per 100 person-years worked. The Radio, TV, Movies, Live Theatre and Ballet sub-sector had the lowest disabling injury rate at 1.34 per 100 person-years worked.
- The Garbage Collection, Recycle, Disposal and Towing Services sub-sector had the highest lost-time claim rate at 3.86 per 100 person-years worked. The

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[16] Statistics Canada's Labour Force Survey (2009 Historical Review) for the Transportation and Warehousing industry. For more information, see Appendix A.

Other Transportation, Communication and Utilities sub-sector had the highest disabling injury rate at 9.22 per 100 person-years worked.

- Within this sector, five sub-sectors had duration rates higher than the average for all sectors in the province, 40 per 100 person-years worked (see Table 5.7).

Table 5.7

Transportation, Communication and Utilities Sector – Alberta: 2008 and 2009

Industry Sector		2008	2009	% Change
Transportation, Communication, and Utilities	Estimated person-years worked	128,982	**116,743**	-9.5%
	Lost-time claims	3,476	**2,854**	-17.9%
	Lost-time claim rate	2.70	**2.44**	-9.5%
	Modified-work claims	4,564	**3,187**	-30.2%
	Disabling injury claims	5,695	**4,645**	-18.4%
	Disabling injury rate	4.42	**3.98**	-9.9%
	Duration rate	73	**75**	3.0%
Sub-Sector		**2008**	**2009**	**% Change**
Air Services	Estimated person-years worked	12,987	**11,875**	-8.6%
	Lost-time claims	466	**436**	-6.4%
	Lost-time claim rate	3.59	**3.67**	2.3%
	Modified-work claims	430	**314**	-27.0%
	Disabling injury claims	606	**546**	-9.9%
	Disabling injury rate	4.67	**4.60**	-1.4%
	Duration rate	58	**70**	19.5%
Bus, Taxi and Limousine Services	Estimated person-years worked	6,566	**5,990**	-8.8%
	Lost-time claims	201	**190**	-5.5%
	Lost-time claim rate	3.06	**3.17**	3.6%
	Modified-work claims	258	**216**	-16.3%
	Disabling injury claims	328	**311**	-5.2%
	Disabling injury rate	5.00	**5.19**	3.9%
	Duration rate	89	**85**	-5.1%
Garbage Collection, Recycle, Disposal and Towing Services	Estimated person-years worked	5,147	**5,568**	8.2%
	Lost-time claims	226	**215**	-4.9%
	Lost-time claim rate	4.39	**3.86**	-12.1%
	Modified-work claims	338	**319**	-5.6%
	Disabling injury claims	402	**401**	-0.2%
	Disabling injury rate	7.81	**7.20**	-7.8%
	Duration rate	83	**91**	10.0%
Radio, TV, Movies, Live Theatre and Ballet	Estimated person-years worked	6,354	**4,692**	-26.2%
	Lost-time claims	52	**38**	-26.9%
	Lost-time claim rate	0.82	**0.81**	-1.0%
	Modified-work claims	42	**39**	-7.1%
	Disabling injury claims	72	**63**	-12.5%
	Disabling injury rate	1.13	**1.34**	18.3%
	Duration rate	54	**25**	-54.6%

Table 5.7 (continued)
Transportation, Communication and Utilities Sector – Alberta: 2008 and 2009

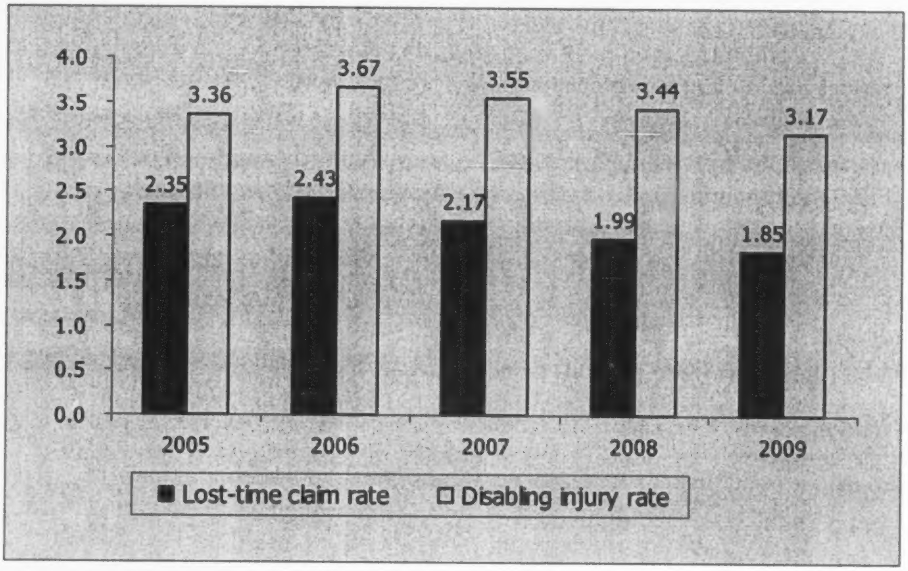
Sub-Sector		2008	2009	% Change
Rail Services	Estimated person-years worked	7,119	**6,439**	-9.5%
	Lost-time claims	135	**117**	-13.3%
	Lost-time claim rate	1.90	**1.82**	-4.0%
	Modified-work claims	135	**83**	-38.5%
	Disabling injury claims	169	**152**	-10.1%
	Disabling injury rate	2.37	**2.36**	-0.6%
	Duration rate	52	**73**	40.8%
Telecommunications, Closed Circuit TV and Cablevision	Estimated person-years worked	14,886	**13,797**	-7.3%
	Lost-time claims	117	**97**	-17.1%
	Lost-time claim rate	0.79	**0.70**	-10.9%
	Modified-work claims	181	**151**	-16.6%
	Disabling injury claims	201	**186**	-7.5%
	Disabling injury rate	1.35	**1.35**	0.0%
	Duration rate	12	**9**	-22.9%
Trucking Services	Estimated person-years worked	54,609	**48,327**	-11.5%
	Lost-time claims	2,004	**1,560**	-22.2%
	Lost-time claim rate	3.67	**3.23**	-12.0%
	Modified-work claims	2,266	**1,433**	-36.8%
	Disabling injury claims	2,961	**2,289**	-22.7%
	Disabling injury rate	5.42	**4.74**	-12.6%
	Duration rate	116	**123**	6.0%
Utilities	Estimated person-years worked	15,957	**15,055**	-5.7%
	Lost-time claims	67	**73**	9.0%
	Lost-time claim rate	0.42	**0.48**	14.3%
	Modified-work claims	216	**208**	-3.7%
	Disabling injury claims	233	**236**	1.3%
	Disabling injury rate	1.46	**1.57**	7.5%
	Duration rate	9	**8**	-6.9%
Other	Estimated person-years worked	5,357	**5,002**	-6.6%
	Lost-time claims	208	**128**	-38.5%
	Lost-time claim rate	3.88	**2.56**	-34.1%
	Modified-work claims	698	**424**	-39.3%
	Disabling injury claims	723	**461**	-36.2%
	Disabling injury rate	13.50	**9.22**	-31.7%
	Duration rate	56	**35**	-36.9%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Wholesale and Retail

The Wholesale and Retail sector includes wholesale operations, food and beverage stores, department stores, furniture and appliance stores, home improvement centres, the sale and service of automobiles, trailers, industrial and farm equipment, and office and medical equipment.

Chart 5.8
Wholesale and Retail Sector – Injury Rates: 2005-2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

Trends and Analysis

Wholesale and Retail was the largest sector in Alberta accounting for 19.3% of the total provincial person-years worked in 2009 (see Chart 4.2). The 2009 lost-time claim rate of 1.85 per 100 person-years worked was a decrease of 6.9% from 2008. This was a result of the number of lost-time claims decreasing by 14.0% and person-years worked decreasing by 7.5%. Since 2005, the lost-time claim rate has decreased by 21.4% compared to the average decrease for all sectors of the province, 29.7%. The disabling injury rate decreased by 7.7% in 2009 to 3.17 per 100 person-years worked. This was a result of a decrease in disabling injury claims of 14.7% (see Table 5.8).

In this sector, men accounted for 60.8% of the lost-time claims in 2009 and 63.5% of disabling injury claims. Men accounted for 52.2% of those in employment[17]. Young workers accounted for 20.6% of the lost-time claims, 23.6% of the disabling injury claims and 26.6% of those in employment (see Table 6.2). Retail salespersons and sales clerks, grocery clerks and store shelf stockers were the occupation groups with the highest number of disabling injury claims, at 16.6% and 11.2% respectively.

The leading nature of injury or disease in this sector was sprains, strains and tears, accounting for 53.6% of all disabling injury claims. This was followed by surface wounds and bruises, 13.9%, and other traumatic injuries and diseases, 11.4%. The back (including spinal cord) was the body part most affected by disabling work incidents in this sector, accounting for 27.0% of injuries. Other trunk accounted for 13.9% of the disabling injury claims, followed by and wrists and hands, 11.1%, and fingers and fingernails, 9.4%.

The leading source of injury was containers, 20.9%, followed by person – ill or injured worker, 17.3%, structures and surfaces, 14.9% and parts and materials, 12.3%. Overexertion was the leading type of event accounting for 26.9% of disabling injuries, followed by struck by object 16.1%.

In this sector the median days lost remained at five in 2009. The average days lost was 18 per claim up from 17 in 2008. Both of these figures are among the lowest when compared to other sectors in the province.

Sub-Sector Analysis:

- Five sub-sectors reported decreases in both lost-time claim and disabling injury rates as a result of decreases in the number of lost-time claims and disabling injury claims. These were the Automobiles, Sport Vehicles, Small Engines and Trailers sub-sector, Industrial, Farm Equipment and Products sub-sector, Yard and Home Improvement Centres sub-sector, Wholesale Operations sub-sector and Other Wholesale and Retail sub-sector (see Table 5.8).
- The Yard and Home Improvement Centres sub-sector had the highest lost-time claim rate at 2.98 per 100 person-years worked. This was followed by the Food and Beverage Stores sub-sector at 2.97. The Food and Beverage Stores sub-sector had the highest disabling injury rate at 5.07 per 100 person-years worked.
- The Office, Medical and Entertainment Equipment sub-sector displayed the lowest lost-time and disabling injury rates at 0.49 and 0.77 per 100 person-years worked respectively.
- Duration rates were lower than the average rate for all sectors in the province in four of the seven sub-sectors.

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[17] Statistics Canada's Labour Force Survey (2009 Historical Review) for the Wholesale and Retail Trade industry. For more information, see Appendix A.

Table 5.8
Wholesale and Retail Sector – Alberta: 2008 and 2009

Industry Sector		2008	2009	% Change
Wholesale and Retail	Estimated person-years worked	320,407	296,534	-7.5%
	Lost-time claims	6,369	5,476	-14.0%
	Lost-time claim rate	1.99	1.85	-6.9%
	Modified-work claims	9,612	7,063	-26.5%
	Disabling injury claims	11,008	9,391	-14.7%
	Disabling injury rate	3.44	3.17	-7.7%
	Duration rate	33	34	1.3%
Sub-Sector		**2008**	**2009**	**% Change**
Automobiles, Sport Vehicles, Small Engines and Trailers	Estimated person-years worked	49,818	45,931	-7.8%
	Lost-time claims	1,049	924	-11.9%
	Lost-time claim rate	2.11	2.01	-4.6%
	Modified-work claims	1,192	822	-31.0%
	Disabling injury claims	1,594	1,375	-13.7%
	Disabling injury rate	3.20	2.99	-6.6%
	Duration rate	41	42	0.9%
Food and Beverage Stores	Estimated person-years worked	57,671	52,966	-8.2%
	Lost-time claims	1,771	1,573	-11.2%
	Lost-time claim rate	3.07	2.97	-3.3%
	Modified-work claims	2,596	2,146	-17.3%
	Disabling injury claims	2,855	2,684	-6.0%
	Disabling injury rate	4.95	5.07	2.4%
	Duration rate	46	49	7.5%
Industrial, Farm Equipment and Products	Estimated person-years worked	52,897	48,464	-8.4%
	Lost-time claims	833	619	-25.7%
	Lost-time claim rate	1.58	1.28	-18.7%
	Modified-work claims	1,359	970	-28.6%
	Disabling injury claims	1,607	1,278	-20.5%
	Disabling injury rate	3.04	2.64	-13.1%
	Duration rate	33	31	-4.5%
Office, Medical and Entertainment Equipment	Estimated person-years worked	25,763	20,257	-21.4%
	Lost-time claims	114	100	-12.3%
	Lost-time claim rate	0.44	0.49	10.9%
	Modified-work claims	127	115	-9.4%
	Disabling injury claims	154	155	0.6%
	Disabling injury rate	0.60	0.77	28.8%
	Duration rate	7	10	29.9%

Table 5.8 (continued)
Wholesale and Retail Sector – Alberta: 2008 and 2009

Sub-Sector		2008	2009	% Change
Yard and Home Improvement Centres	Estimated person-years worked	13,653	**13,048**	-4.4%
	Lost-time claims	469	**389**	-17.1%
	Lost-time claim rate	3.44	**2.98**	-13.2%
	Modified-work claims	744	**498**	-33.1%
	Disabling injury claims	830	**649**	-21.8%
	Disabling injury rate	6.08	**4.97**	-18.2%
	Duration rate	52	**53**	2.6%
Wholesale Operations	Estimated person-years worked	28,922	**26,747**	-7.5%
	Lost-time claims	496	**402**	-19.0%
	Lost-time claim rate	1.72	**1.50**	-12.5%
	Modified-work claims	984	**632**	-35.8%
	Disabling injury claims	1,083	**811**	-25.1%
	Disabling injury rate	3.75	**3.03**	-19.1%
	Duration rate	31	**30**	-2.6%
Other	Estimated person-years worked	91,684	**89,120**	-2.8%
	Lost-time claims	1,637	**1,469**	-10.3%
	Lost-time claim rate	1.79	**1.65**	-7.6%
	Modified-work claims	2,610	**1,880**	-28.0%
	Disabling injury claims	2,885	**2,439**	-15.5%
	Disabling injury rate	3.15	**2.74**	-12.9%
	Duration rate	26	**25**	-4.6%

Data Source: WCB Data, Prepared by Data Development and Evaluation

SECTION

6

DEMOGRAPHICS OF INJURED WORKERS

In this section, we examine the demographics of the injured worker. While the focus is at the provincial level, sector information of interest is highlighted.

Injured Worker Characteristics

The age, job tenure, wage, gender, and occupation of injured workers are analysed to help government and industries determine workplace health and safety programs for specific groups.

Age

Injuries in most age groups were generally proportionate to their representation among workers in Alberta, although workers aged 15 to 24 accounted for a higher proportion of injury claims than the proportion they represent in employment (see Table 6.1 and Chart 6.1). In 2009, young workers accounted for 15.5% of lost-time claims and 17.9% of disabling injury claims while accounting for 15.9% of those in employment. Young workers also accounted for 13.5% of the total actual hours worked in the province. Looking at actual hours worked is a good indicator of the exposure to workplace hazards for more marginal groups in employment, due to differing levels of part-time employment in various industries. It indicates a higher frequency of injury for young workers compared to other age groups than employment counts would suggest (see also Note 6.1).

Note 6.1
In a national study completed by the Institute for Work and Health (IWH), young workers were often found to accept workplace injuries as "part of the job" because they were frequent and minor. They determined that this perspective is, for the most part, the result of young workers' perceived inability to improve or alter their working conditions *(Breslin et al., 2006).*

Older workers are injured less frequently, partially due to their greater levels of experience and the type of work they perform. Workers aged 45 to 54 years accounted for 22.1% of disabling injury claims and 22.9% of those in employment. Workers aged 55 years and older accounted for 15.0% of lost time claims and 12.1% of disabling injury claims and 15.9% of those in employment. Workers aged 55 years and older also accounted for 15.5% of the total actual hours worked in the province.

Workers aged 45 and older were less likely than young workers to be injured seriously enough to warrant time off from work, although they required more time to recover from an injury. The duration of absence from work due to workplace injury or disease for 15 to 24 year olds displayed a median days lost of five and an average days lost of 15. Workers 55 years and older displayed a median of 10 and an average of 30 days lost.

Each age group had different patterns of injury across industry sectors, although most displayed a higher proportion of injuries to young workers than the proportion they represent in employment (see Table 6.2). In the Mining and Petroleum Development sector, young workers (those aged 15 to 24) accounted for 12.0% and 17.9% of lost-time claims and disabling injury claims, while accounting for 13.2% of those in employment. In the Transportation, Communication and Utilities sector, young workers accounted for 8.2% of those in employment, while accounting for 9.8% and 13.2% of the lost-time claims and disabling injury claims. In contrast, young workers accounted for 20.6% of lost-time claims, 23.6% of disabling injury claims, and 26.6% of those in employment in the Wholesale and Retail sector.

Table 6.1

Lost-Time Claims and Disabling injury claims by Age – Alberta: 2008 and 2009

Age	2008				2009			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
Under 15 Years	21	0.1%	36	0.1%	9	0.0%	14	0.0%
15 - 19 Years	1,675	5.3%	3,738	6.2%	1075	4.1%	2210	4.7%
20 - 24 Years	3,875	12.3%	9,117	15.0%	2966	11.4%	6299	13.3%
25 - 34 Years	7,125	22.7%	15,539	25.6%	5980	22.9%	12342	26.0%
35 - 44 Years	7,145	22.7%	13,436	22.1%	5740	22.0%	10414	21.9%
45 - 54 Years	7,296	23.2%	12,421	20.5%	6414	24.6%	10493	22.1%
55+ Years	4,273	13.6%	6,405	10.6%	3912	15.0%	5733	12.1%
Unspecified	0	N/A	0	N/A	0	N/A	0	N/A
Total	31,410	100.0%	60,692	100.0%	26,096	100.0%	47,505	100.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Table 6.2

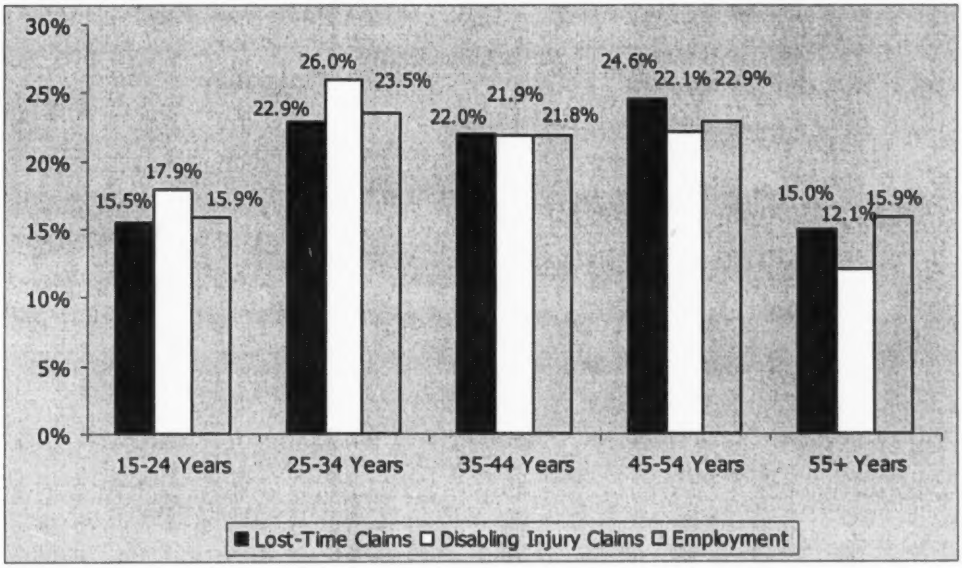
Proportion of Lost-Time Claims, Disabling Injury Claims and Employment by Major Industry Sector – Young Workers (15-24 years), Alberta: 2009

Major Industry Sector	Lost-Time Claims	Disabling Injury Claims	Employment
Agriculture and Forestry	14.4%	19.0%	8.3%
Business, Personal and Professional Services	22.4%	23.5%	19.2%
Construction and Construction Trade Services	18.2%	20.6%	16.3%
Manufacturing, Processing and Packaging	13.3%	14.5%	11.1%
Mining and Petroleum Development	12.0%	17.9%	13.2%
Public Administration, Education and Health Services	9.6%	10.7%	8.8%
Transportation, Communication and Utilities	9.8%	13.2%	8.2%
Wholesale and Retail	20.6%	23.6%	26.6%
All Industries	**15.5%**	**17.9%**	**15.9%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

Chart 6.1

Proportion of Lost-Time Claims, Disabling Injury Claims and Employment by Selected Age Groups – Alberta: 2009



Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada's Labour Force Survey (2009 Historical Review)

Job Tenure

Job tenure is the length of time a worker has had consistent work with the same employer. Workers employed for less than six months account for 26.6% of lost-time claims and 27.7% disabling injury claims while accounting for 12.9% of those in employment. Conversely, workers employed for more than a year accounted for 60.0% of lost-time claims and 58.4% of disabling injury claims while accounting for the majority of those employed, 77.4% (see Chart 6.2). New workers therefore, are more likely to be involved in a workplace incident.

Table 6.3

Proportion* of Lost-Time Claims, Disabling Injury Claims and Employment by Tenure – Alberta: 2009

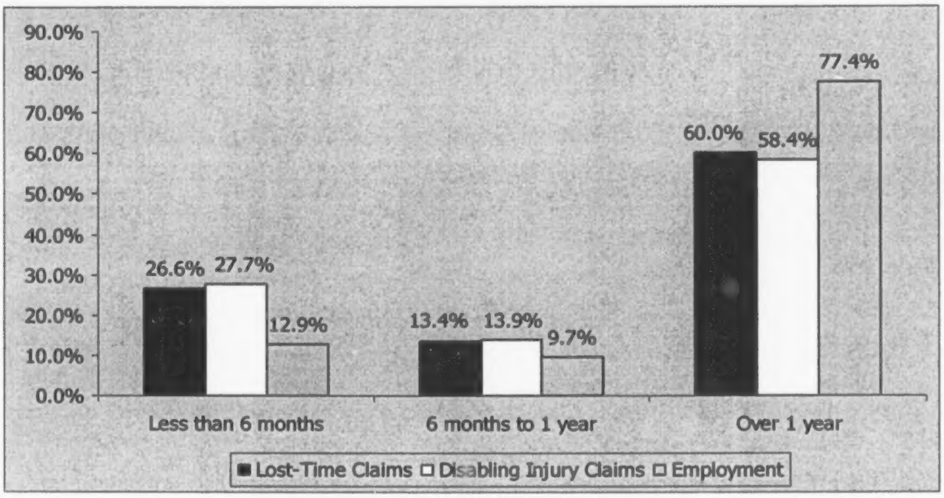
Tenure	Lost-Time Claims	%	Disabling Injury Claims	%	Employment
Less than 6 months	5,427	26.6%	9,039	27.7%	12.9%
6 months to 1 year	2,721	13.4%	4,523	13.9%	9.7%
Over 1 year	12,234	60.0%	19,021	58.4%	77.4%
Unspecified	5,714	N/A	14,922	N/A	0.0%
Total	26,096	100.0%	47,505	100.0%	100.0%

* Claims with unspecified tenure data have been removed from proportions.

Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada's Labour Force Survey (2009 Historical Review)

Chart 6.2

Proportion of Lost-Time Claims, Disabling Injury Claims and Employment by Tenure – Alberta: 2009

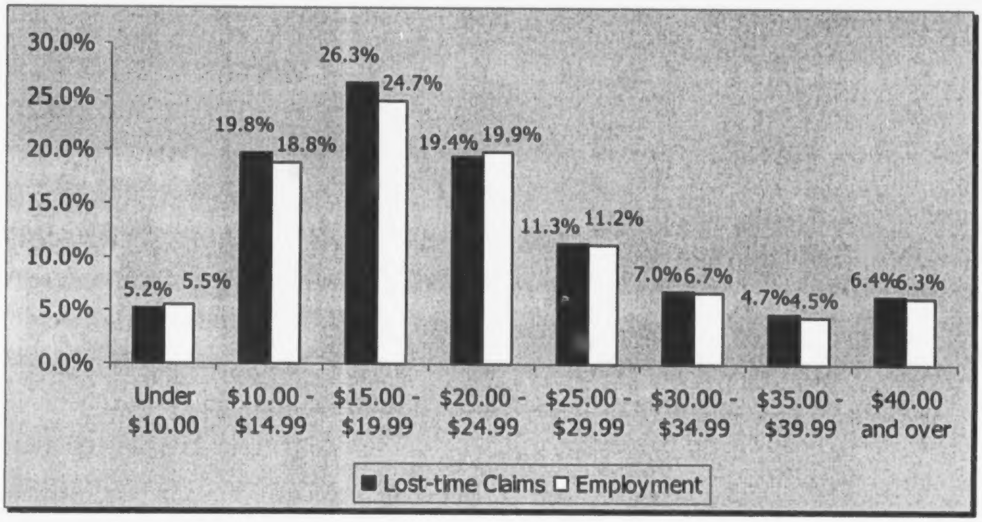


Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada's Labour Force Survey (2009 Historical Review)

Hourly Wage

Injuries were more prevalent in lower income groups.

Chart 6.3
Proportion of Lost-Time Claims* and Employment by Hourly Wage – Alberta: 2009



* Claims with unspecified wage data have been removed from proportions.
Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada, Labour Force Survey (Microdata Files)

Gender

In 2009, men accounted for 64.1% of lost-time claims and 70.6% of disabling injury claims while representing 54.6% of those employed in Alberta (see Table 6.4 and Chart 6.4). Women accounted for 45.4% of those employed in 2009, yet accounted for 35.9% of the lost-time claims and 29.4% of the disabling injury claims. These differences are likely the result of the different types of work women and men perform and the gender delineated attitudes and roles they bring to the workplace (see Note 6.2). The trend however, is reduced when we compare the proportions of lost-time claims and disabling injury claims to the total actual hours worked by each gender, as it allows for a better comparison of labour market exposure than employment counts for those in part-time employment (see Chart 6.4).

Men represented the majority of workers in higher risk industry sectors: Construction and Construction Trade Services, Agriculture and Forestry, Transportation, Communication and Utilities, and Manufacturing, Processing and Packaging, and submitted more claims. More women than men had lost-time claims in sectors where women made up a larger proportion of the labour force. In the Public Administration, Education and Health Services sector, women accounted for 66.4% of lost-time claims, 63.6% of disabling injury claims and 73.1% of those in employment. In the Business, Personal and Professional Services sector, women accounted for 53.2% of lost-time claims, 51.7% of disabling injury claims and 50.8% of those in employment[18].

Table 6.4

Lost-Time Claims and Disabling Injury Claims by Gender – Alberta: 2008 and 2009

Gender	2008				2009			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
Men	20,748	66.1%	43,644	72.3%	16,734	64.1%	33,449	70.6%
Women	10,661	33.9%	16,733	27.7%	9,362	35.9%	13,950	29.4%
Unspecified	1	N/A	315	N/A	0	N/A	106	N/A
Total	**31,410**	**100.0%**	**60,692**	**100.0%**	**26,096**	**100.0%**	**47,505**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

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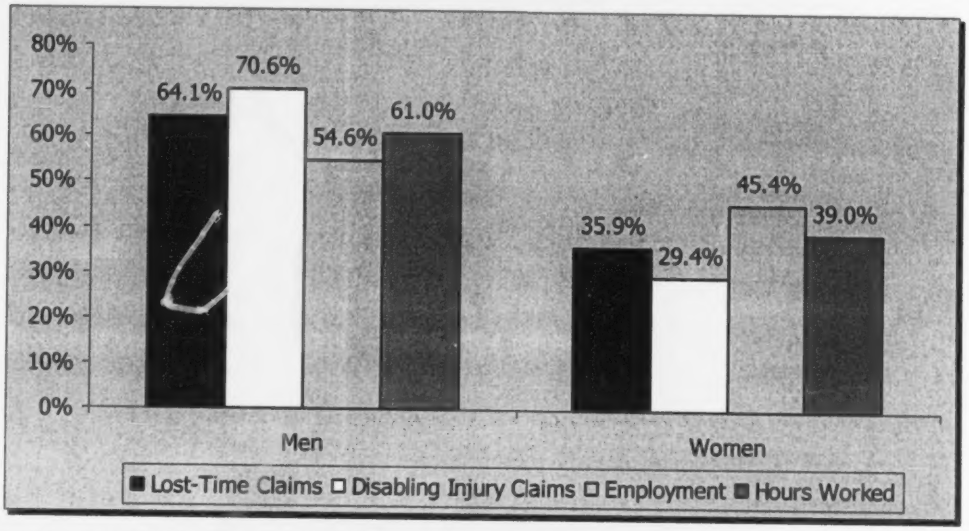
[18] Statistics Canada's Labour Force Survey (2009 Historical Review). For further information see Appendix A.

Chart 6.4

Proportion of Lost-Time Claims, Disabling Injury Claims and Employment by Gender – Alberta: 2009



Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada's Labour Force Survey (2009 Historical Review)

Occupation group

Occupation group is used to describe the kind of work performed by the injured worker regardless of the industry in which their employer is classified.

In 2009, the trades helpers, construction, and transportation labourers and related occupations had the largest number of injuries and diseases with time away from work or requiring modified work, accounting for 9.6% of total lost-time claims and 11.7% of disabling injury claims. This occupation group accounted for only 2.4% of those in employment in Alberta.[19] In contrast, the clerical occupations accounted for 5.1% and 5.2% of the total lost-time claims and disabling injury claims, yet they accounted for 10.0% percent of those in employment in 2009 (see Table 6.5 and Chart 6.5).

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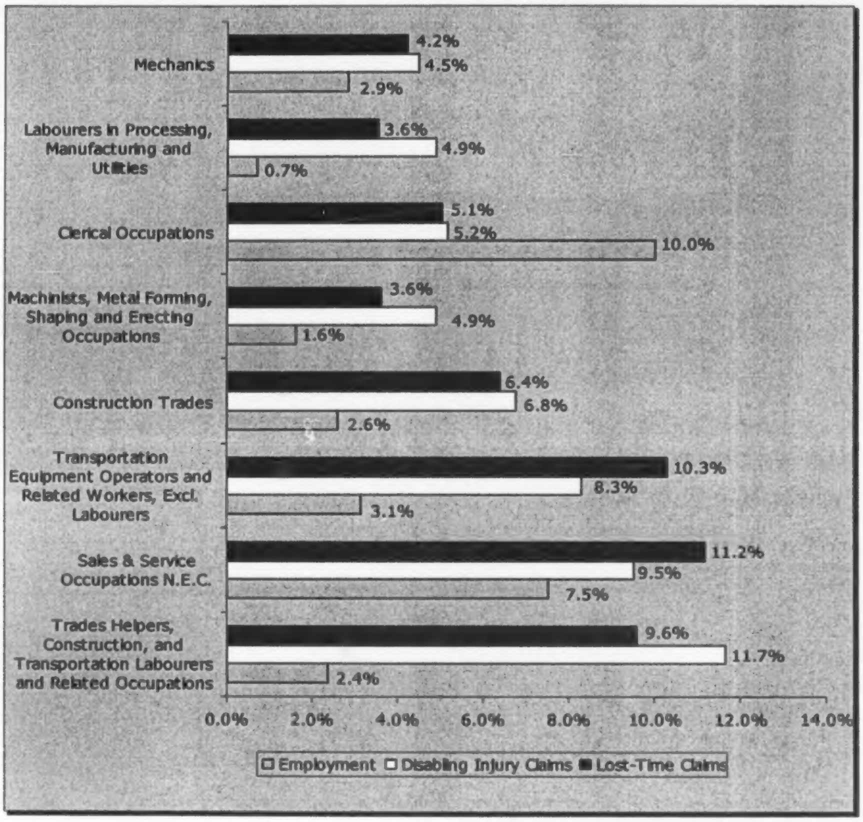
[19] Statistics Canada's Labour Force Survey (Microdata files). For further information see Appendix A.

Chart 6.5

Proportion of Lost-Time Claims, Disabling Injury Claims and Employment by Selected Occupation Group[20] – Alberta: 2009



Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada's Labour Force Survey (Microdata files)

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[20] Occupation groups were selected by highest proportion of disabling injury. A full comparison by occupation group is available on request.

SECTION

7

INJURY AND DISEASE ANALYSIS

Overexertion was the most common cause for lost-time claims in all industries. Sprains, strains and tears continued to be the leading nature of injury with the trunk being the most commonly injured body part.

The following section presents more in-depth breakdown of workplace injuries or diseases.[21]

Nature of Injury or Disease

In 2009, 93.5% of lost-time claims and 94.8% of disabling injury claims were traumatic injuries and disorders. The four most common specific traumatic injuries and disorders were sprains, strains and tears, surface wounds and bruises, fractures and dislocations, and other traumatic injuries and disorders (see Table 7.1).

Note 7.1
Throughout this section, the classifications used are based on the Canadian Standards Association (CSA) standards for categorizing occupational injury and disease information.

Men filed 67.9% of all sprains, strains and tears disabling injury claims compared to 32.1% from women. The proportions are greater for fractures and dislocations with 77.7% of disabling injury claims submitted by men, 22.3% by women. Only in the infectious and parasitic disorders category, where women filed 80.5% of claims compared to 19.5% by men, did women file more disabling injury claims.

Note 7.2
The CSA standard is designed so that Nature of Injury and Part of Body categories are directly linked when classifying injuries. This is also true for the relationship between the Source of Injury and Type of Event categories.

A large number of sprains, strains and tears disabling injury claims resulted in injuries to the back (including spine and spinal cord), 39.3%, and other trunk (for example, shoulder or chest), 16.5%. This nature of injury also resulted in a high proportion of injuries to the legs, 11.5% and ankles and feet, 10.1%.

Person – ill or injured, structures and surfaces, and containers were the highest sources of injury connected with sprains, strains and tears disabling injury claims, accounting for 29.5%, 15.0% and 14.6% respectively. Overexertion and bodily reaction were the leading types of event connected with the sprains, strains and tears disabling injury claims, accounting for 40.0% and 22.3% of the total claims respectively.

The next leading nature of injury, after sprains, strains and tears, was surface wounds and bruises, accounting for 11.3% of the lost-time claims and 12.7% of the disabling injury claims. The largest part of body categories associated with surface wound claims were the legs, 14.9%, eyes, 13.4%, other trunk, 12.4%, wrists, 9.8% and ankles, 9.1%.

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[21] Detailed analysis of the pattern among these characteristics is available upon request.

Structures and surfaces were the highest sources of injury connected with surface wounds, accounting for 28.4% of the claims. Parts and materials, 16.1%, other sources, 14.0%, and vehicles, 8.9%, followed this. Struck by object, 33.8%, and fall on same level, 21.3%, were the leading types of event associated with surface wound claims.

Table 7.1
Nature of Injury or Disease – Alberta: 2009

Nature of Injury	Lost-Time Claims	%	Disabling Injury Claims	%
Traumatic Injuries and Disorders	**24,392**	**93.5%**	**45,042**	**94.8%**
Sprains, Strains and Tears	12,904	49.4%	23,983	50.5%
Surface Wounds and Bruises	2,951	11.3%	6,011	12.7%
Fractures and Dislocations	2,670	10.2%	3,754	7.9%
Open Wounds	2,074	7.9%	4,723	9.9%
Burns	563	2.2%	906	1.9%
Other Traumatic Injuries and Disorders	3,230	12.4%	5,665	11.9%
Systemic Diseases and Disorders	**1,343**	**5.1%**	**2,005**	**4.2%**
Infectious and Parasitic Disorders	**113**	**0.4%**	**113**	**0.2%**
Neoplasms, Tumors and Cancer	**6**	**<0.1%**	**6**	**<0.1%**
Symptoms, Signs and Ill-Defined Conditions	**100**	**0.4%**	**143**	**0.3%**
Multiple Diseases, Conditions and Disorders	**4**	**<0.1%**	**5**	**<0.1%**
Other Diseases, Conditions and Disorders	**116**	**0.4%**	**127**	**0.3%**
Nature of Injury - Unknown	**22**	**0.1%**	**64**	**0.1%**
Total	**26,096**	**100.0%**	**47,505**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

Part of Body Injured

The trunk was the main injured body part, accounting for 36.9% of disabling injury claims and 38.2% of lost-time claims in 2009 (see Table 7.2). This was followed by injuries to the upper extremities, 27.3% of the disabling injury claims, and lower extremities, 20.1%.

Of the injuries to the trunk, 21.2% were person – ill or injured. Containers, structures and surfaces were the main connected sources of injury. These categories accounted for 17.5% and 14.9% of the total disabling injury claims respectively. The majority of all back injuries resulted from overexertion, 51.1%, or bodily reaction, 18.4%.

The upper extremities accounted for 27.3% of disabling injury claims in 2009. The two largest proportions of claims were for open wounds and sprains, strains and tears, 29.6% and 24.1%. Being struck by an object, 24.4%, and caught in objects, 16.4%, were the two leading causes of disabling injury claims to the upper extremities.

Over half of the injuries and diseases to the lower extremities included sprains, strains and tears, 55.5%. For source of injury, the leading causes were person – ill or injured, 35.6%, followed by structures and surfaces, 25.5%. Over thirty percent of injuries to the lower extremities resulted from bodily reaction, 33.4%, and 16.5% resulted from being struck by objects.

In all sectors, the trunk was the primary part of body injured. For the Manufacturing, Processing and Packaging sector and the Business, Personal and Professional Services sector the upper extremities were almost equal in proportions of injury when compared to trunk injuries.

Table 7.2
Part of Body Injured – Alberta: 2009

Part of Body Injured	Lost-Time Claims	%	Disabling Injury Claims	%
Trunk	**9,971**	**38.2%**	**17,523**	**36.9%**
Back, Including Spine, Spinal Cord	6,449	24.7%	11,007	23.2%
Other Trunk	3,522	13.5%	6,516	13.7%
Upper Extremities	**5,565**	**21.3%**	**12,973**	**27.3%**
Finger(s), Fingernail(s)	1,820	7.0%	4,852	10.2%
Wrist(s) and Hand(s) Except Finger(s)	2,233	8.6%	4,975	10.5%
Other Upper Extremities	1,512	5.8%	3,146	6.6%
Lower Extremities	**5,565**	**21.3%**	**9,555**	**20.1%**
Leg(s)	2,867	11.0%	4,834	10.2%
Ankle(s) and Foot (Feet) Except Toes	2,400	9.2%	4,288	9.0%
Other Lower Extremities	298	1.1%	433	0.9%
Head	**2,077**	**8.0%**	**3,134**	**6.6%**
Other Head Parts	1,439	5.5%	1,966	4.1%
Eye(s)	638	2.4%	1,168	2.5%
Multiple Body Parts	**1,931**	**7.4%**	**2,849**	**6.0%**
Neck, Including Throat	**561**	**2.1%**	**987**	**2.1%**
Body Systems	**390**	**1.5%**	**439**	**0.9%**
Part of Body - Unknown	**30**	**0.1%**	**37**	**0.1%**
Other Body Parts	**6**	**<0.1%**	**8**	**<0.1%**
Total	**26,096**	**100.0%**	**47,505**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

Source of Injury or Disease

The two primary sources of lost-time claims were persons, plants, animals and minerals, 26.7%,[22] and structures and surfaces,[23] 21.0% (see Table 7.3). They also accounted for 25.7% and 17.9% of disabling injury claims respectively.

Persons, plants, animals and minerals was the leading source of injury in all sectors, with 51.1% of the disabling injury claims the result of bodily reaction. Repetitive motion also accounted for 17.2% of these claims. The leading nature connected with the persons, plants, animals and minerals claims was sprains, strains and tears, 72.3%, with the back (including spine and spinal cord) the leading part of body injured, 29.2%.

Almost all of the source of injury categories caused more injuries or diseases to men than women. The exceptions were persons - other than injured or ill worker[24] where women compose 77.5% of disabling injury claims and other persons, plants, animals, and minerals where women compose 51.4% of total claims.

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[22] Persons, plants, animals and minerals include living organisms and their products as well as raw, metallic and non-metallic minerals (examples: animals and animal products, asbestos, etc).

[23] Structures and surfaces include the floor or the ground resulting in sprains, strains and tears, fractures and dislocations and surface wounds and bruises. This contact is usually the result of a fall, either from a height or on the same level.

[24] Person-other than injured or ill worker classifies workplace injuries or illnesses inflicted by family members as well as non-family relations, including co-workers, former co-workers, and patients.

Table 7.3
Source of Injury or Disease – Alberta: 2009

Source of Injury	Lost-Time Claims	%	Disabling Injury Claims	%
Persons, Plants, Animals and Minerals	**6,970**	**26.7%**	**12,209**	**25.7%**
Person-Injured or Ill Worker*	4,643	17.8%	9,038	19.0%
Person-Other Than Injured or Ill Worker**	1,566	6.0%	1,980	4.2%
Minerals - Metallic or Nonmetallic (except fuel)	104	0.4%	197	0.4%
Other Persons, Plants, Animals & Minerals	657	2.5%	994	2.1%
Structures and Surfaces	**5,470**	**21.0%**	**8,496**	**17.9%**
Parts and Materials	**2,679**	**10.3%**	**6,287**	**13.2%**
Containers* **	**2,726**	**10.4%**	**5,137**	**10.8%**
Vehicles	**2,132**	**8.2%**	**3,407**	**7.2%**
Tools, Instruments and Equipment	**2,014**	**7.7%**	**4,505**	**9.5%**
Hand Tools - Nonpowered	854	3.3%	2,210	4.7%
Hand Tools - Powered	207	0.8%	482	1.0%
Other Tools and Equipment	953	3.7%	1,813	3.8%
Machinery	**1,267**	**4.9%**	**2,381**	**5.0%**
Furniture and Fixtures	**854**	**3.3%**	**1,437**	**3.0%**
Chemicals and Chemical Products	**315**	**1.2%**	**504**	**1.1%**
Other Sources	**1,373**	**5.3%**	**2,457**	**5.2%**
Source of Injury - Unknown	**296**	**1.1%**	**685**	**1.4%**
Total	**26,096**	**100.0%**	**47,505**	**100.0%**

* Person – ill or injured worker: classifies self-injured person, bodily conditions, and self-induced bodily motion injuries.

** Person - other than injured or ill worker: classifies workplace injuries or illnesses inflicted by family members as well as non-family relations, including co-workers, former co-workers, and patients.

*** Containers: classifies receptacles that are commonly used to hold, store or carry materials (examples: dishes, cups and glasses, luggage, etc.).

Data Source: WCB Data, Prepared by Data Development and Evaluation

Type of Event or Exposure

This classification is used to describe the incident or event that directly resulted in the injury or disease. In 2009, 42.7% and 44.3% of the lost-time and disabling injury claims were due to bodily reaction or exertion. Overexertion was the most common type of bodily reaction or exertion, accounting for approximately one fifth of disabling injury claims and lost-time claims.

Of the overexertion injuries, 86.8% were caused by sprains, strains and tears, which resulted from excessive physical effort in activities such as lifting, pulling and pushing objects. Pressurized and non-pressurized containers were the main source of injury accounting for 30.4% of the overexertion disabling injury claims. Injury to the back was the most frequently reported part of body injured due to overexertion, at 51.0%.

Overexertion injuries were the most common in the following sectors: Business, Personal and Professional Services, Construction and Construction Trade Services, Manufacturing and Processing Services, Mining and Petroleum Development, Public Administration, Education and Health Services, Retail and Wholesale Trade Services, and the Transportation, Communication, and Utilities sector. For the Agriculture and Forestry sector, struck by objects was the leading injury type.

Table 7.4
Type of Event or Exposure – Alberta: 2009

Type of Event or Exposure	Lost-Time Claims	%	Disabling Injury Claims	%
Bodily Reaction or Exertion	**11,134**	**42.7%**	**21,049**	**44.3%**
Overexertion	5,982	22.9%	11,027	23.2%
Bodily Reaction*	3,376	12.9%	6,241	13.1%
Repetitive Motion	914	3.5%	2,099	4.4%
Other Bodily Reaction/Exertion	862	3.3%	1,682	3.5%
Contact with Objects or Equipment	**6,052**	**23.2%**	**13,244**	**27.9%**
Struck by Object	3,135	12.0%	6,575	13.8%
Struck against Object	1,193	4.6%	2,535	5.3%
Caught in Object	1,021	3.9%	2,511	5.3%
Rubbed or Abraded	312	1.2%	698	1.5%
Other Contact with Object/Equipment	391	1.5%	925	1.9%
Falls	**5,426**	**20.8%**	**8,251**	**17.4%**
Fall on Same Level	3,670	14.1%	5,729	12.1%
Fall to Lower Level	1,494	5.7%	2,083	4.4%
Other Falls	262	1.0%	439	0.9%
Exposure to Harmful Substances	**1,483**	**5.7%**	**2,079**	**4.4%**
Transportation Accidents	**1,299**	**5.0%**	**1,883**	**4.0%**
Assaults and Violent Acts	**556**	**2.1%**	**699**	**1.5%**
Assaults and Violent Acts by Person(s)	420	1.6%	518	1.1%
Other Assaults and Violent Acts	136	0.5%	181	0.4%
Fires and Explosions	**49**	**0.2%**	**71**	**0.1%**
Other Events or Exposures	**7**	**<0.1%**	**9**	**<0.1%**
Type of Event - Unknown	**90**	**0.3%**	**220**	**0.5%**
Total	**26,096**	**100.0%**	**47,505**	**100.0%**

* Bodily reaction: injuries or illnesses resulting from a single incident of free bodily motion which imposed stress or strain on some part of the body.

Data Source: WCB Data, Prepared by Data Development and Evaluation

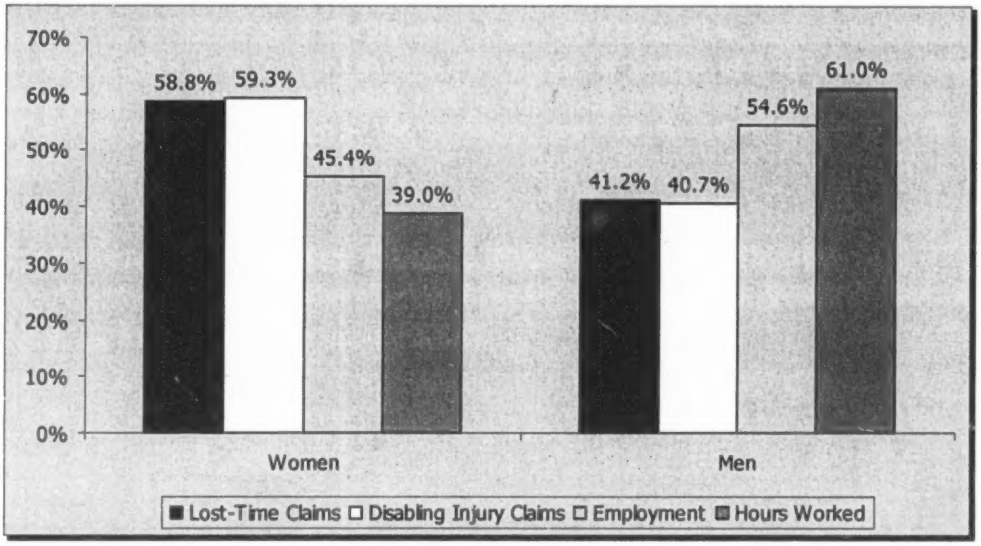
Workplace Violence

It is difficult to capture the actual number of violent incidents that take place in Alberta workplaces. In 2007, Statistics Canada released information from the 2004 General Social Survey of Victimization. Using a definition of violence as 'physical assault, sexual assault and robbery', it found 21% of violent incidents in the workplace result in injury and about 37% of violent incidents are reported to police (de Léséleuc, 2007). Women and men are almost equally likely to experience workplace violence (53% and 47% respectively), although 90% of incidents involve a single male perpetrator. In addition, violent workplace incidents involving male victims were more likely than those involving female victims to come to the attention of the police (57% of men compared to 20% of women).

In 2009, the WCB accepted 420 lost-time claims and 518 disabling injury claims related to assaults and violent acts by person(s). This equates to one in every 62 lost-time claims and one in every 92 disabling injury claims. The number of claims is not a reflection of violent incidents taking place in the workplace however, as not all incidents result in injury.

Chart 7.1

Proportion of Lost-Time Claims, Disabling Injury Claims, Employment and Hours Worked by Gender – Assaults and Violent Acts by Person(s), Alberta: 2009



Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada's Labour Force Survey (2009 Historical Review)

Women filed more injury claims due to an assault or violent act than their male counterparts (see Chart 7.1). This difference between injury claims and police reporting could mean several things, the most likely being that women are more willing to report claims to the WCB than report to the police, women are more likely to be injured in incidents of workplace violence, and the number of women injured as a result of workplace violence could be larger than the reported number of injury claims.

Violent incidents also varied greatly by industry sector. Statistics Canada found that 33% of victims worked in social assistance or health care (de Léséleuc, 2007). The WCB data suggests that assaults and violent acts are more likely in the Health Services Industries than in other industries in the province. Rehabilitation Services for the Disabled had the highest proportion of disabling injury claims for assaults and violent acts by person(s) accounting for 15.2% of all disabling injury claims. Social/Community Support Services had the highest proportion of lost-time claims, 17.5% (see Table 7.5).

Table 7.5

Lost-Time and Disabling Injury Claims by Industry - Assaults and Violent Acts by Person(s), Alberta: 2009

Industry	Lost-Time Claims			Disabling Injury Claims		
	Assaults and Violent Acts by Person(s) Claims	Total Claims	%	Assaults and Violent Acts by Person(s) Claims	Total Claims	%
Hospitals/Acute Care Centers	81	1,728	4.7%	88	1,951	4.5%
Rehabilitation Services For Disabled	41	265	15.5%	57	375	15.2%
Cities	38	1,277	3.0%	53	1,949	2.7%
Continuing Care Facilities	30	885	3.4%	48	1,169	4.1%
Social/Community Support Services	34	194	17.5%	37	251	14.7%
Alberta Government - Health/Social/Field Services	27	268	10.1%	29	319	9.1%
School Boards	19	509	3.7%	23	654	3.5%
Security Services/Industrial Patrols	16	151	10.6%	19	197	9.6%
Food/Convenience Stores	23	1,506	1.5%	23	2,583	0.9%
Restaurants/Take-Out Food Service	14	942	1.5%	15	1,145	1.3%
Hotels and Convention Centres	7	434	1.6%	8	710	1.1%
All Other Industries	90	17,937	0.5%	118	36,202	0.3%
All Industries	**420**	**26,096**	**1.6%**	**518**	**47,505**	**1.1%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

Duration of Disability

Duration of disability[25] is intended to show the severity of the effects of occupational injury and disease as reflected by the number of days off work. The efforts of employers to introduce modified work programs to integrate injured workers back into the workforce can have a positive impact on work days lost.

Over half of all total lost-time claims in 2009 resulted in ten or fewer days lost from work (see Table 7.6). 21.9% of total claims resulted in 31 or more days lost. The median number of days lost was seven in 2009, the same as in 2008. The average number of days lost increased to 24 in 2009.

Table 7.6

Duration of Disability – Alberta: 2008 to 2009

Duration of Disability	2008		2009	
	Lost-Time Claims	%	Lost-Time Claims	%
1 Day	4,101	13.1%	**3,178**	**12.2%**
2 Days	3,112	9.9%	**2,582**	**9.9%**
3 - 5 Days	5,649	18.0%	**4,643**	**17.8%**
6 - 10 Days	4,506	14.3%	**3,492**	**13.4%**
11 - 20 Days	3,980	12.7%	**3,298**	**12.6%**
21 - 30 Days	2,109	6.7%	**1,747**	**6.7%**
31 Days or more	6,438	20.5%	**5,707**	**21.9%**
Unspecified	1,515	4.8%	**1,449**	**5.6%**
Total	31,410	100.0%	**26,096**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

By industry sector, those with the highest median and average days lost follow the same pattern. The Agriculture and Forestry sector had the highest median days lost at 15 and the highest average days lost at 42, indicative of high injury severity. This was followed by the Mining and Petroleum Development sector with 11 and 34, the Construction and Construction Trade Services sector with 12 and 33, and the Transportation, Communication and Utilities sector with nine median days lost and an average days lost of 30.

Among the major nature of injuries or diseases, the median workdays lost were highest for fractures and dislocations with a median of 31 and average days lost of 52. Injuries to the leg(s) were the part of body with the highest median days lost and average days lost, 12 and 34.

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[25] The duration of disability refers to the length of time, in days, for which the worker receives wage compensation from the WCB.

For sources of injury, structures and surfaces had the highest median days lost of 10, followed by person – ill or injured worker and vehicles, both at nine. Structures and surfaces and vehicles had average days lost of 32 and 28. Of the types of event, fall to the lower level and other falls had the highest median days lost of 16 and 14. These two types of events had average days lost of 41 and 35 respectively.

OCCUPATIONAL FATALITIES

The WCB accepted 110 occupational fatalities for compensation in 2009.

A WCB accepted occupational fatality is defined as the death of a worker resulting from a work-related incident or exposure which has been accepted by the WCB for compensation. Some of the fatalities accepted in a particular year occurred in prior years.

This section provides a description of the occupational fatalities and fatality rates for both the province and major industry sectors. It also breaks down incidents by type of event and injury, and worker demographics.

Types of Occupational Fatalities Accepted by the WCB

All fatalities were classified by type based on WCB classification standards. Occupational fatalities are classified into three general types:

- motor vehicle incidents (including latent motor vehicle incidents)
- workplace incidents (including latent workplace incidents)
- occupational disease

Occupational Health and Safety Officers investigate workplace incidents while local police authorities normally investigate motor vehicle incidents and workers' physicians report deaths due to occupational disease.

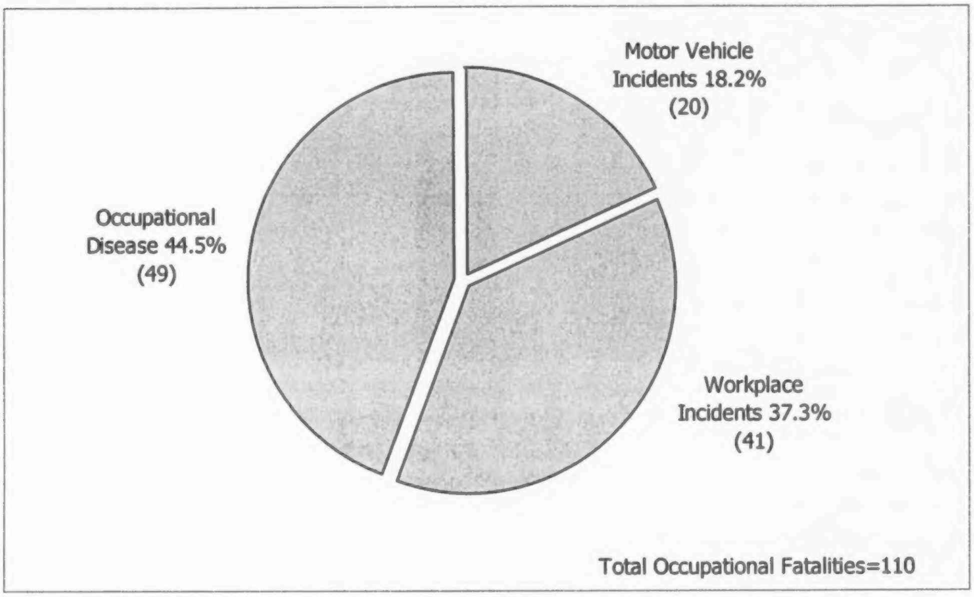
Motor Vehicle Incidents

Motor vehicle incidents typically involve non-industrial vehicles operating on public roads in which the fatally injured worker was either the driver or a passenger. This type of occupational fatality also includes cases involving aircraft crashes, train crashes, helicopter crashes and water vehicle crashes. In 2009, 18.2% of the occupational fatalities were motor vehicle incidents (see Chart 8.1).

Workplace Incidents

Workplace incidents consist of cases in which the worker died at a worksite or as a result of injuries sustained at a worksite. The proportion of workplace incident fatalities accepted by the WCB was 37.3% in 2009.

Chart 8.1
Types of Occupational Fatalities Accepted by the WCB – Alberta: 2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

Occupational Disease

Occupational disease fatalities consist mostly of recognized occupational disease, that is, disease known to be primarily or exclusively work-related such as asbestosis and coal workers' pneumoconiosis. This category also includes heart attacks suffered on the job. Occupational diseases are frequently diagnosed several years after the initial or crucial exposure to the toxic substance, and in such cases, it is difficult to determine when the fatal exposure occurred. *The occupational disease category, therefore, should not be interpreted to reflect present worksite hazardous conditions or exposures.* The proportion of occupational fatalities accepted in 2009 resulting from occupational disease was 44.5% (see Table 8.1).

Table 8.1
Types of Occupational Fatalities Accepted By the WCB[26] – Alberta: 2000-2009

Year	Motor Vehicle Incidents		Workplace Incidents		Occupational Disease		Total
	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities
2000	30	25.4%	51	43.2%	37	31.4%	118
2001	40	33.9%	33	28.0%	45	38.1%	118
2002	30	29.7%	40	39.6%	31	30.7%	101
2003	44	34.6%	37	29.1%	46	36.2%	127
2004	37	29.8%	38	30.6%	49	39.5%	124
2005	42	29.4%	40	28.0%	61	42.7%	143
2006	33	26.6%	37	29.8%	54	43.5%	124
2007	44	28.6%	47	30.5%	63	40.9%	154
2008	50	30.1%	52	31.3%	64	38.6%	166
2009	20	18.2%	41	37.3%	49	44.5%	110
Total	**370**	**28.8%**	**416**	**32.4%**	**499**	**38.8%**	**1,285**

Data Source: WCB Data, Prepared by Data Development and Evaluation

Latent Workplace and Motor Vehicle Fatalities

Latent fatalities consist of workers who were involved in a workplace incident or exposure, or a motor vehicle incident that did not become a fatality until a much later date, often years later. These incidents were classified as occupational diseases. From 2002, these incidents are included with either motor vehicle or workplace incident categories in accordance to their original injury.

Table 8.2
Latent Fatalities Accepted by the WCB – Alberta: 2002-2009

Year	Number of Latent Motor Vehicle Incidents	Number of Latent Workplace Incidents	Total
2002	1	10	11
2003	0	12	12
2004	3	3	6
2005	3	6	9
2006	0	10	10
2007	1	7	8
2008	3	8	11
2009	3	10	13
Total	**14**	**66**	**80**

Data Source: WCB Data, Prepared by Data Development and Evaluation

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[26] From 2002, latent motor vehicle and workplace incident fatalities have been classified under the original incident. Previously, these incidents have been classified and recorded as occupational disease fatalities.

Usually other contributing factors cause a latent fatality, although these contributing factors are the result of the initial injury or exposure. A motor vehicle incident where a worker received leg injuries requiring surgery is a good example of this. Complications during surgery result in a blood clot causing a fatal stroke. Thus, the injury is classified latent because the original injury caused the requirement for surgery.

Over the past eight years, there has been an average of 10 latent fatalities accepted each year. In 2009, there were 10 latent workplace incidents and three latent motor vehicle incidents (see Table 8.2).

Occupational Fatalities: Ten-Year Trend Analysis

Over the past ten years, occupational disease fatality claims accounted for 38.8% of the total accepted fatality claims. Motor vehicle fatalities and workplace incident fatalities accounted for 28.8% and 32.4% of accepted fatality claims respectively (see Table 8.1).

The proportion motor vehicle fatalities account of the total accepted fatalities has remained broadly similar over the ten years and the actual number of claims decreased in 2009. The proportion workplace incidents account of the total has fallen, although increased in 2009. For occupational diseases, both the proportion and number of occupational disease claims have increased over the last ten years.

The actual number of accepted fatalities shows a general increase since 2000. This does not take in to account however, the change in the number of people working in Alberta, which has also increased significantly in the last ten years. In 2009, the number of occupational fatalities decreased greatly in Alberta.

Occupational Fatality Rate

The fatality rate provides an estimate of the number of fatalities in a particular year compared to the size of the working population in a particular year. It is calculated by dividing the number of accepted fatalities in the year by the number of estimated person-years worked (workers covered by the WCB). The result is then expressed as fatalities per million person-years worked. Since 2000, the person-years worked estimates have grown by 37.1% from 1,122,785 to 1,539,738.

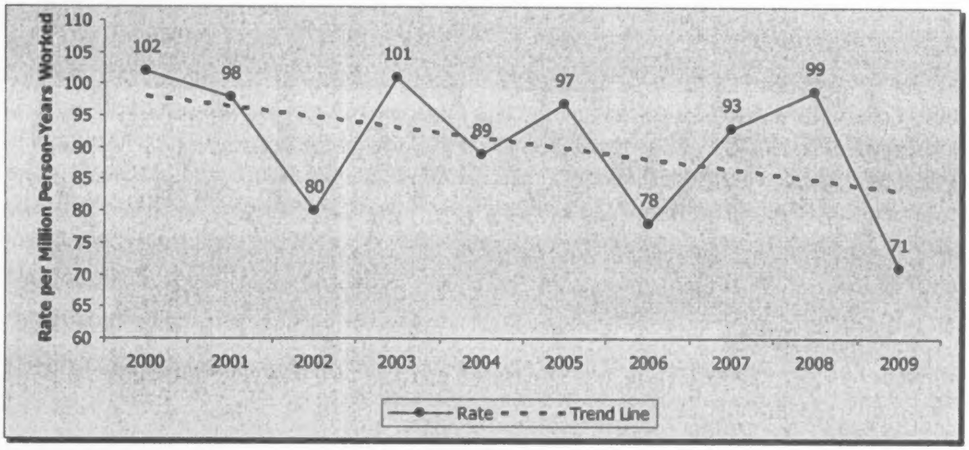
Table 8.3
Occupational Fatality Rates* – Alberta: 2000-2009

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
Total Fatalities	118	118	101	127	124	143	124	154	166	110	1,285
Number of Fatalities Excluding AEI Excluded Industries	114	115	99	126	120	142	122	150	165	110	1,263
Fatality Rate	102	98	80	101	89	97	78	93	99	71	90

*Fatality rates are expressed as fatalities per million person-years worked. Estimates are based upon information provided by the WCB. Fatalities occurring under the jurisdiction of the Government of Canada are excluded from the calculation of the fatality rates.
Data Source: WCB Data, Prepared by Data Development and Evaluation.

Between 2000 and 2009, the provincial fatality rate fluctuated between 102 fatalities per million person-years worked in 2000, and 71 fatalities per million person-years worked in 2009. The average ten-year fatality rate was 90 fatalities per million person-years worked. In 2009, the fatality rate was 71 fatalities per million person-years worked. The trend line presented in Chart 8.3 shows a decrease in the fatality rate over time.

Chart 8.3
Occupational Fatality Rate – Alberta: 2000-2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

Further analysis by accident type

In order to better understand the fatality trends, data has been grouped into two five-year periods. Between 2000 and 2004, there were 181 motor vehicle fatality claims accepted. Between 2005 and 2009 there were 189 (see Table 8.4). The rise over the last ten years is attributable to an increase in highway incidents.

Workplace incident fatalities display a different general trend with the number of fatalities due to workplace incidents remaining similar over the two five-year periods. The composition of events has shown change, however, with the number of fatalities as a result of fires and explosions and struck by objects decreasing while the number related to exposure to harmful substances, being caught in object, bodily reaction or related to falls, increased.

In comparison to workplace and motor vehicle incidents, occupational diseases require a different method of analysis as they take place over time not in a single recordable event. Therefore, the occupational disease fatalities are presented in two separate frameworks of analysis, source and nature. Source of disease describes the actual substance or exposure that leads to a worker's death (e.g. asbestos). Nature of disease describes the condition that caused the worker's death (e.g. asbestosis).

Table 8.4

Motor Vehicle Incident Fatalities by Type of Event – Alberta: 2000-2009

Type of Event or Exposure	2000-2004	2005-2009	Number of Fatalities	Percent
Highway Incident	120	123	243	65.7%
Aircraft Incident	10	15	25	6.8%
Pedestrian Incident*	7	9	16	4.3%
Non-highway Incident**	4	4	8	2.2%
Railway Incident	2	1	3	0.8%
Other	38	37	75	20.3%
Total	**181**	**189**	**370**	**100.0%**

* Includes all non-passengers struck by vehicle or mobile equipment.

** Does not include rail, air or water accidents but includes motor vehicle incidents occurring off the highway e.g. Industrial or commercial premises, city roads or parking lots.

Data Source: WCB Data, Prepared by Data Development and Evaluation

Table 8.5

Workplace Incident Fatalities by Type of Event – Alberta: 2000-2009

Type of Event or Exposure	2000-2004	2005-2009	Number of Fatalities	%
Contact with Objects and Equipment	**62**	**67**	**129**	**31.0%**
Struck by Objects	41	37	78	18.8%
Caught in Objects	20	29	49	11.8%
Struck Against Objects	1	1	2	0.5%
Falls	**36**	**43**	**79**	**19.0%**
Fall to Lower Level	27	27	54	13.0%
Fall on Same Level	8	13	21	5.0%
Other Falls	1	3	4	1.0%
Transportation Accidents*	**21**	**26**	**47**	**11.3%**
Exposure to Harmful Substances	**14**	**21**	**35**	**8.4%**
Fires and Explosions	**15**	**7**	**22**	**5.3%**
Assaults and Violent Acts	**9**	**5**	**14**	**3.4%**
Assaults/Violent Acts by Persons	7	5	12	2.9%
Other Assaults/Violent Acts	2	0	2	0.5%
Bodily Reaction or Exertion	**2**	**9**	**11**	**2.6%**
Other Bodily Reaction/Exertion	**0**	**6**	**6**	**1.4%**
Unknown	**40**	**33**	**73**	**17.5%**
Total	**199**	**217**	**416**	**100.0%**

* Transportation incidents include all events that involve industrial vehicles, transportation vehicles or powered mobile industrial equipment.

Data Source: WCB Data, Prepared by Data Development and Evaluation

The most frequent source of occupational disease fatalities relate to exposure to asbestos, representing 74.9% of occupational disease fatalities from 2005-2009 (see Table 8.6). Consequently, the most frequent natures of occupational disease fatalities were also asbestos related: mesothelioma (a form of lung cancer largely caused by exposure to asbestos) at 29.9% and asbestosis at 29.6% (see Table 8.6).

Table 8.6

Occupational Disease Fatalities Accepted by the WCB, by Source of Disease – Alberta: 2005-2009

Source of Fatality	2005	2006	2007	2008	2009	Number of Fatalities	%
Persons, Plants, Animals or Minerals	**46**	**48**	**54**	**55**	**40**	**243**	**83.5%**
Asbestos	43	40	47	49	39	218	74.9%
Silica*	1	4	3	2	1	11	3.8%
Coal Dust	2	1	0	1	0	4	1.4%
Grain Dust	0	2	2	1	0	5	1.7%
Other Persons, Plants, Animals or Minerals	0	1	2	2	0	5	1.7%
Chemicals and Chemical Products	**11**	**4**	**9**	**7**	**7**	**38**	**13.1%**
Smoke and Fumes	8	3	2	2	1	16	5.5%
Other Chemicals	3	1	7	5	6	22	7.6%
Bodily Reaction and Exertion	**4**	**0**	**0**	**0**	**0**	**4**	**1.4%**
Unknown	**0**	**0**	**0**	**2**	**0**	**2**	**0.7%**
Other	**0**	**2**	**0**	**0**	**2**	**4**	**1.4%**
Total	**61**	**54**	**63**	**64**	**49**	**291**	**100.0%**

*Gravel Dust.

Data Source: WCB Data, Prepared by Data Development and Evaluation

Table 8.7

Occupational Disease Fatalities Accepted by the WCB, by Nature of Disease – Alberta: 2005-2009

Nature of Fatality	2005	2006	2007	2008	2009	Number of Fatalities	%
Neoplasms, Tumors and Cancer	**32**	**17**	**34**	**33**	**19**	**135**	**46.4%**
Mesothelioma**	14	8	21	27	17	87	29.9%
Other Neoplasms, Tumors and Cancer	18	9	13	6	2	48	16.5%
Respiratory Illnesses	**24**	**34**	**27**	**31**	**28**	**144**	**49.5%**
Asbestosis	14	17	12	21	22	86	29.6%
Silicosis	1	3	3	2	1	10	3.4%
Coal Workers' Pneumoconiosis	2	0	0	1	1	4	1.4%
Other forms of Pneumoconiosis*	5	8	5	1	1	20	6.9%
Other Respiratory Illnesses	2	6	7	6	3	24	8.2%
Heart-Related Diseases	**3**	**2**	**1**	**0**	**0**	**6**	**2.1%**
Other	**2**	**1**	**1**	**0**	**2**	**6**	**2.1%**
Total	**61**	**54**	**63**	**64**	**49**	**291**	**100.0%**

* Pneumoconiosis classifies conditions characterized by permanent deposition of substantial amounts of particulate matter in the lungs, and by the tissue reaction to their presence. Particulate matter includes inorganic as well as organic dusts.

** Mesothelioma is a form of lung cancer largely caused by exposure to asbestos.

Data Source: WCB Data, Prepared by Data Development and Evaluation

Occupational Fatality Rates in Industry Sectors

The estimated occupational fatality rate for Alberta in 2009 was 71 deaths per million person-years worked (see Chart 8.3 and Table 8.3), a decrease from 99 in 2008. It should be noted that, unlike the lost-time claim rate, the fatality rate is not a reliable indicator of the present risk of work-related injury and disease since conditions that resulted in the exposure or disease may no longer be present. An example of this is asbestosis.

Like lost-time claim rates, fatality rates vary across industry sectors due to the different types of work activity performed. In order to reduce year-to-year variations, a ten-year period, split into two five-year periods, was used to present fatality rates for each sector, dividing the total number of accepted fatalities in a sector by the total number of person-years worked during that period. Four sectors saw decreases in their fatality rate between these two five-year periods. The largest fall was in the Mining and Petroleum Development sector, 36.5%, followed by the Transportation, Communication and Utilities sector, 22.1%. The largest increase in the fatality rate was in the Public

Administration, Education and Health Services sector which rose by 37.1% (see Note 8.1).

The Agriculture and Forestry sector had the highest fatality rate over the last ten years (see Table 8.8). The estimated ten-year rate of 306 per million person-years worked was 3.4 times greater than the ten-year provincial rate of 90 per million person-years worked. Caution should be used in considering the fatality rate for Agriculture and Forestry. Most of the industries in this sector do not require compulsory workers' compensation coverage, resulting in the under-counting of the person-years worked and fatalities for this sector (see Note 8.2). Fatality rates reported should be more reliable for sectors where a majority of the industries have workers' compensation coverage.

Note 8.1
In 2003, the WCB inserted a "presumptive clause" for firefighters, who are included in the Public Administration, Education and Health Services sector. This clause presumes that certain primary site cancers following minimum periods of exposure are work-related, thereby automatically entitling those workers to workers' compensation benefits *(WCB Insight, 2003).*

The Construction and Construction Trade, Transportation, Communication and Utilities, Mining and Petroleum Development and Manufacturing and Processing sectors had higher occupational fatality rates than the average for all sectors (see Table 8.8).

Note 8.2
In 2009, Alberta Agriculture, Food and Rural Development reported 13 farm related fatalities. Of the 13, eight were over 60 years, one was a child. There were 12 males versus one female.
(Agri-News, 2010).

Table 8.8
Occupational Fatality Rates by Industry Sector – Alberta: 2000-2009

Major Industry Sector	2000 - 2004		2005 - 2009		Ten-year Total	
	Number of Fatalities	Fatality Rate	Number of Fatalities	Fatality Rate	Number of Fatalities	Fatality Rate
Agriculture and Forestry	13	261	17	353	30	306
Business, Personal and Professional Services	19	17	28	20	47	19
Construction and Construction Trade Services	185	213	240	176	425	191
Manufacturing and Processing	73	85	94	98	167	92
Mining and Petroleum Development	79	189	69	120	148	149
Public Administration, Education and Health Services	40	35	65	48	105	42
Transportation, Communication and Utilities	111	217	103	169	214	191
Wholesale and Retail	48	41	55	36	103	38
Unspecified Sector	20	N/A	26	N/A	46	N/A

Data Source: WCB Data, Prepared by Data Development and Evaluation

The Construction and Construction Trade sector accounted for 34.4% of occupational fatalities over the last five years. In 2009, it accounted for 30.9% of fatalities (see Table 8.9) compared to 17.7% of the total person-years worked in the province (see Chart 4.1 and Note 8.3).

Note 8.3
The International Labour Organization (ILO) estimates that there are a least 60,000 fatal accidents on construction sites *globally* each year. In industrialized countries, as many as 25% to 40% of work related deaths occur on construction sites, even though the sector employs only 6% to 10% of the workforce *(ILO Facts on Safety at Work, 2005).*

Table 8.9

Occupational Fatality Claims by Major Industry Sector – Alberta: 2005-2009

Major Industry Sector	2005	2006	2007	2008	2009	Number of Fatalities	Percent
Agriculture and Forestry	1	4	5	2	5	17	2.4%
Business, Personal and Professional Services	2	5	9	11	1	28	4.0%
Construction and Construction Trade Services	55	42	50	59	34	240	34.4%
Manufacturing and Processing	20	16	21	20	17	94	13.5%
Mining and Petroleum Development	17	13	10	15	14	69	9.9%
Public Administration, Education and Health Services	15	10	14	13	13	65	9.3%
Transportation, Communication and Utilities	20	22	27	23	11	103	14.8%
Wholesale and Retail	11	10	10	14	10	55	7.9%
Unspecified Sector	2	2	8	9	5	26	3.7%
Total	**143**	**124**	**154**	**166**	**110**	**697**	**100%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

Occupational Fatalities by Age Group

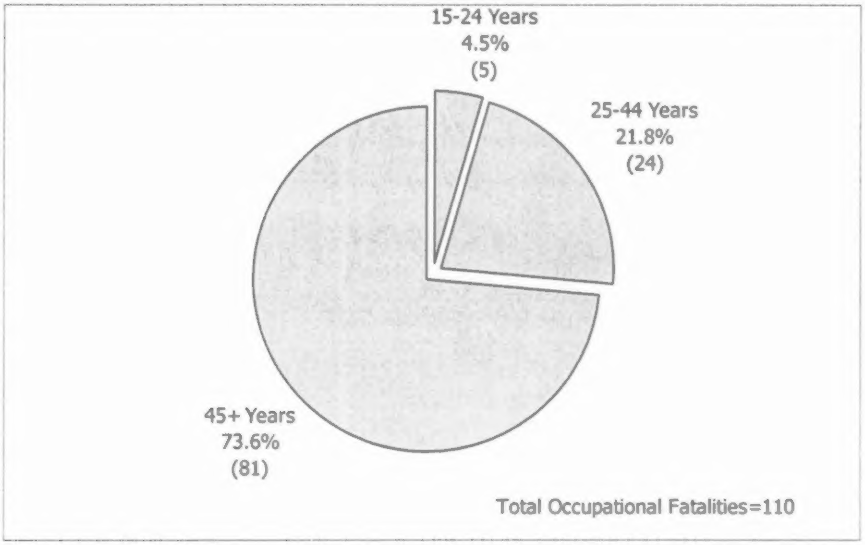
Distribution of occupational fatalities in Alberta is not even across age groups. Workers aged 45 years and older accounted for about 73.6% of fatalities in 2009 (see Chart 8.4). As many fatalities in this age group are the result of working conditions present when these workers were younger, removing the occupational disease fatalities from the total allows for a better comparison. Workers aged 45 years and older accounted for 50.0% of the motor vehicle incident fatalities in 2009 and 53.7% of the workplace incident fatalities, while accounting for 38.7% of those in employment.

Table 8.10
Occupational Fatalities by Age Group – Alberta: 2000-2009

Age Group	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
12-14 Years	1	0	0	0	0	1	0	0	0	0	2
15-24 Years	12	9	6	8	13	10	4	8	8	5	83
25-44 Years	49	39	35	38	36	35	34	35	43	25	368
45+ Years	55	69	60	81	75	97	86	111	115	80	830
Unspecified	1	1	0	0	0	0	0	0	0	0	2
Total	**118**	**118**	**101**	**127**	**124**	**143**	**124**	**154**	**166**	**110**	**1,285**

Data Source: WCB Data, Prepared by Data Development and Evaluation

Chart 8.4
Occupational Fatalities by Age Group – Alberta: 2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

CERTIFICATE OF RECOGNITION

A Certificate of Recognition (COR) is given to employers who develop health and safety programs that meet established standards. Certificates are jointly issued by Certifying Partners and E&I.[27]

In 2009, the number of employers with a COR increased from 7,603 in 2008 to 8,804. These employers represented 5.7% of all employer accounts with WCB in the province, although they represent 38.8% of the total person-years worked (see Table 9.1).

The Construction and Construction Trade sector had the highest proportion of employers with a COR and the highest proportion of person-years worked for a COR-certified employer. The Business, Personal and Professional Services sector had the lowest proportion of COR-certified employers and the lowest proportion of person-years worked for an employer with a COR.

Table 9.1
Employers With Valid COR — Alberta: 2009

Sub-Sector	% of Total Employers Certified	% of Total Person-Years Certified
Agriculture and Forestry	7.7%	26.7%
Business, Personal and Professional Services	1.6%	20.2%
Construction and Construction Trade	8.1%	59.9%
Manufacturing and Processing	6.1%	49.4%
Mining and Petroleum Development	6.1%	58.8%
Public Administration, Education and Health Services	6.0%	37.3%
Transportation, Communication and Utilities	7.1%	41.0%
Wholesale and Retail	3.4%	25.0%
Total	5.7%	38.8%

Data Source: Partnership and WCB Data, Prepared by Data Development and Evaluation

Between 2008 and 2009, the lost-time claim rate for 2009 COR holders fell by 11.2%, from 1.97 to 1.75 per 100 person-years worked. The rate for all non-COR holders decreased by 8.8%, from 1.82 to 1.66 per 100 person-years worked. The disabling injury rate for COR holders decreased by 16.0% to 4.11 per 100 person-years worked, and non-COR holders saw a decrease of 13.5% in their disabling injury rate to 2.44 per 100 person-years worked (see Table 9.2). A low lost-time claim rate and high disabling injury rate can be indicative of proficient claims management, however, it may also be a reflection of larger employers having greater capacity to offer modified duties to injured workers than smaller employers.

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[27] For more information on the COR program visit http://www.employment.alberta.ca/SFW/334.html

Comparing COR holders against all non-COR holders provides useful information about each group, although it does not compare like-with-like. A COR is given to employers who develop health and safety programs that meet established standards. While this group is seeing continued improvement, some non-COR holders may have good health and safety programs that may even exceed the COR standard. These employers are being counted along with those employers that may have no health and safety systems in place. This makes evaluating improving health and safety trends less clear for non-COR holders.

Table 9.2

Lost-Time Claim and Disabling Injury Rates for COR Holders — Alberta: 2008 and 2009

Employer	Year	Number of Accounts	Person-Years Worked	Lost-Time Claims	Disabling Injury Claims	Lost-Time Claim Rate	Disabling Injury Rate	Change in Lost-Time Claim Rate	Change in Disabling Injury Rate
COR	2008	9,031	656,068	12,911	32,066	1.97	4.89	-11.2%	-16.0%
	2009	9,046	596,982	10,477	24,548	1.75	4.11		
Non-COR	2008	151,074	1,015,849	18,499	28,626	1.82	2.82	-8.8%	-13.5%
	2009	149,476	942,756	15,619	22,957	1.66	2.44		

* This analysis is based on WCB employer accounts that had active accounts in the respective years (inactive accounts were not included). Analysis was based on all of a company's operations when the individual employers operated under multiple industry codes.

Data Source: WCB Data, Prepared by Data Development and Evaluation

WORKPLACE INSPECTIONS AND ORDERS

E&I works in co-operation with employers, workers and industry associations to support the establishment of effective health and safety management systems.

While promoting education and best practices at Alberta workplaces, E&I also uses inspections and incident investigations to identify non-compliance with legislation so health and safety can be improved.

The intent of inspections is to monitor compliance at work sites where an inspection is likely to make the most impact. Poor health and safety performance and uncontrolled hazards are targeted for inspections. E&I officers also investigate reported complaints and serious incidents. In 2009, E&I completed 14,227 inspections.

When non-compliance is identified, E&I will work co-operatively with the responsible parties to correct the situation. When necessary, orders will be issued by E&I to correct variances with regulatory requirements. E&I issued 9,157 orders in 2009.

Table 10.1
Workplace Inspections and Orders – Alberta: 2009

	2009
Number of Inspections	14,227
Number of Orders Written	9,157

Data Source: Worksite Inspection Tracking System, 2009

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APPENDIX A: TERMS, DEFINITIONS AND FORMULAS

Lost-Time Claim	A lost-time claim (LTC) is a claim for an occupational injury or disease that causes the worker to have time away from work beyond the day of injury. Included are claims receiving reimbursement of full or partial lost wages due to occupational illness or injury, or payment for permanent loss of function.
Modified Work Claim	A modified work claim is a claim for an occupational injury or disease where workers had their normal work duties altered to enable them to remain working without losing time from work. Also included are claims where injured workers are helped back into the workplace with modified duties after time lost due to injury or disease.
Disabling Injury Claim	Disabling injury (DI) claims combine both the lost-time and modified work concepts to produce an overall figure where an occupational injury or disease disables the worker causing either time-lost from work or for their normal work duties to be modified.
Person-Years Worked	Person-years worked are estimates calculated from wage and payroll data provided by account holders to the WCB. Alberta Employment and Immigration uses data to estimate an average industry wage, and uses the average industry wage and employer payroll data to estimate person-years worked for each employer and each industry. One person-year is equivalent to one full-time worker working for one year, and can be assumed to equal 2,000 hours worked.
Lost-Time Claim Rate	The lost-time claim rate is calculated by dividing the number of lost-time claims by the person-year estimate, and multiplying the result by 100. The lost-time claim rate represents the probability or risk of an injury or disease to a worker during a period of one-year work, which will result in time lost from work. Comparisons of lost-time claim rates between industries, or between years, can be used to indicate increases, decreases, or differences in this risk.

$$\text{LTC Rate} = \frac{\text{Number of LTC's}}{\text{Person-years worked}} \times 100$$

Disabling Injury Rate

The disabling injury rate is calculated by dividing the number of disabling injury claims by the person-year estimates, and multiplying the result by 100. The disabling injury rate represents the probability or risk of a disabling injury or disease to a worker during a period of one-year of work. The disabling injury rate is similar to the lost-time claim rate although it covers a broader range of injuries, including those that are less severe in nature (do not require time away from work). The rate represents the number of claims per 100 person-years worked and includes claims made for both lost-time and modified work.

$$\text{Disabling Injury Rate} = \frac{\text{Number of DI's}}{\text{Person-years worked}} \text{ x } 100$$

Duration (Days-lost)

The duration of disability is the number of days following the injury or disease for which the worker was disabled and unable to perform normal work duties. This information is obtained for this report from data on compensation days paid on each claim from the WCB. Alberta Employment and Immigration obtains these data on March 31 of the year following the claim year, and does not update the information, even though many injured workers continue to be disabled beyond this date. As a result, the duration information reported here underestimates the true impact of lost-time injury and disease, although it provides a consistent method for reporting and observing trends in duration.

Duration Rate

The duration rate is calculated by dividing the number of workdays-lost (disability days) by the person-year estimate, and multiplying by 100. The result is expressed as days-lost per 100 person-years worked, and indicates, in part, the economic impact of occupational injury and disease. Duration rates are not recommended as reliable indicators of full economic cost. In addition, readers are warned that duration rates are highly unstable when based on only a few lost-time claims; it is recommended that the duration rate not be calculated based upon fewer than 30 lost-time claims.

$$\text{Duration Rate} = \frac{\text{Disability Days}}{\text{Person-years worked}} \text{ x } 100$$

Industry Coverage

About 80% of employed persons in Alberta are covered by WCB. This report focuses on all industry activity in Alberta covered by the WCB and by the provincial legislation for occupational health and safety. Most industry sectors are included but notable exceptions consist of the Government of Canada, and parts of the agriculture and finance sectors. Several professional groups (i.e. the teaching and medical professions) are also excluded as are some industries where WCB coverage is not compulsory.

WCB Accepted Fatality	An occupational fatality is the death of a worker which resulted from a work-related incident or exposure and which has been accepted by the WCB for compensation. A fatality is counted in the year it is accepted.
Fatality Rate	The fatality rate is calculated by dividing the number of accepted fatalities by the person-years worked estimate and multiplying the result by one million. The result is expressed as fatalities per million person-years worked. Fatalities that are found under the jurisdiction of the Government of Canada are excluded before the calculation of the fatality rate. $\text{Fatality Rate} = \frac{\text{Number of Fatalities}}{\text{Person-years worked}} \times 1{,}000{,}000$
NEC	Means 'Not Elsewhere Classified'.
UNS	Means 'Unspecified'.
Labour Force Survey	The Labour Force Survey (LFS) is a household survey carried out monthly by Statistics Canada. The objectives of the LFS have been to divide the working-age population into three mutually exclusive classifications (employed, unemployed, and not in the labour force) and to provide descriptive and explanatory data on each of these categories. Data from the survey provide information on major labour market trends such as shifts in employment across industrial sectors, hours worked, labour force participation and unemployment rates. For the most part, annual LFS data has been analyzed alongside injury and disease information to aid the understanding of injury risk or frequency by worker type. The LFS uses a different industry classification from WCB, although there are similarities in structure. Where possible, the two data sources are used comparably and proportions (of totals) have been used to evaluate information generated from both sources. Using proportions attempts to overcome obvious distortions in the numbers in employment from both sources, although the impact on the proportions from industry coverage differences is unclear. In certain instances, monthly LFS micro-data files have been combined and used to produce proportion estimates for the whole year for particular sub-groups of the population. For further information on the LFS, please see http://www.employment.alberta.ca/BI/2599.html

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Work Safe Alberta website:

www.worksafe.alberta.ca

Workplace Health and Safety Contact Centre:

Telephone: 780-415-8690, toll free by calling 1-866-415-8690

http://www.employment.alberta.ca/SFW/2874.html

Certificate of Recognition (COR) Program:

http://www.employment.alberta.ca/SFW/334.html